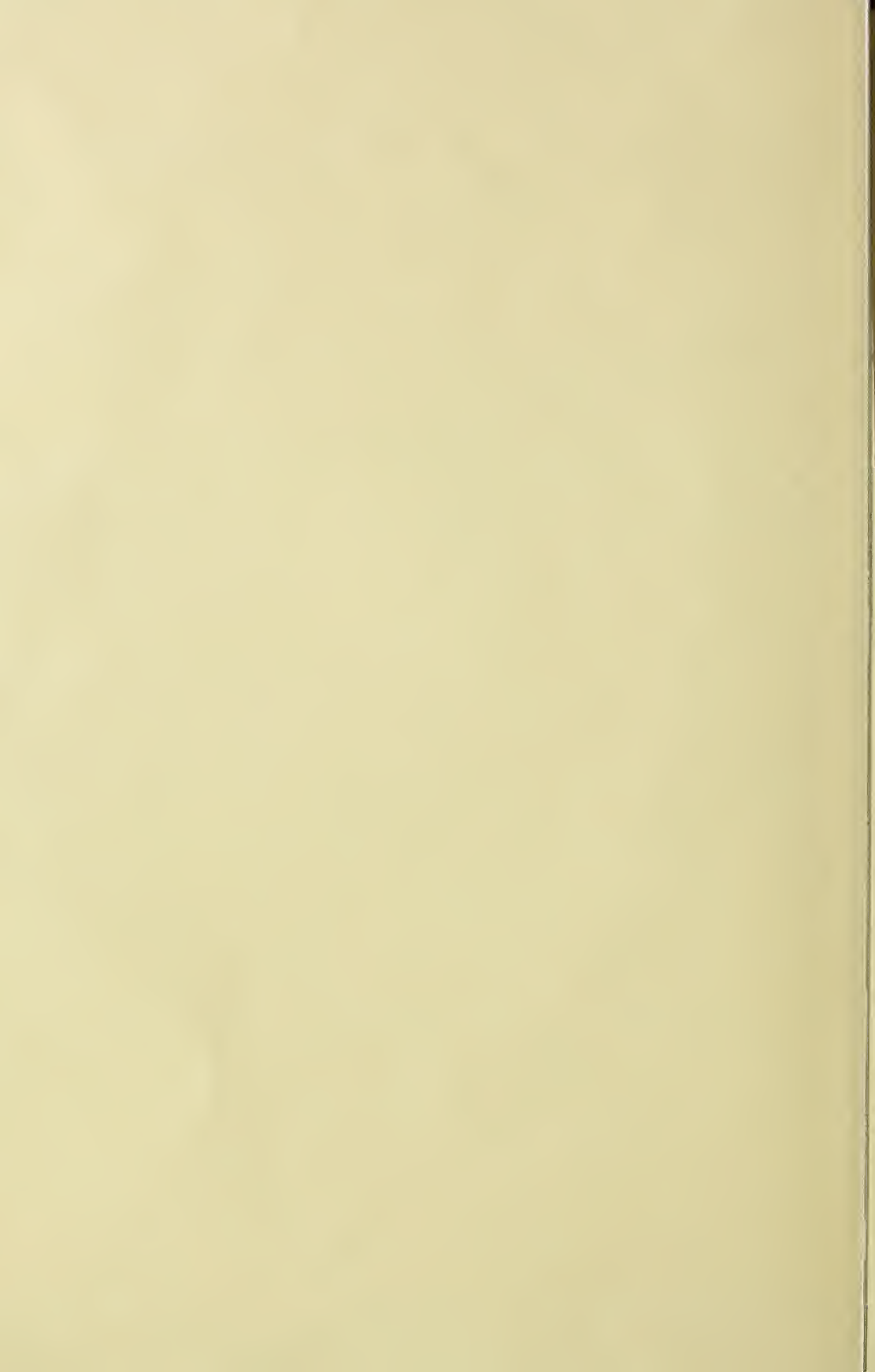


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THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

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WHY GO WEST?

Thousands have gone, and are going West, from the North, South and East, as well as the multitudinous stream of humanity that has been forced by the strategical, sharp practice of rail road caterers, direct from the sea-board, aye, from the deck plank, as far as the poor emigrants could be conveyed by rail, when they were landed at or beyond the bounds of civilization, and dropped, like a cat from a bag, to live the best they could. Sad, sad enough, would be the truthful history of thousands of poor ignorant Germans, and others from the other continent, who have been thus enticed from their peaceful, happy homes in the Faderland, and taken on shipboard, their passage money secured, and ere they were allowed to place their foot upon the soil of the new country, their rail road fare was worried out of them, and they hurried like a drove of brutes to some grand trunk rail road station, and whirled away to the wilds of the far, far West. A very large majority of these emigrants, who have been thus stealthily enticed to an congenial abode, know little or nothing of the character of farming required in settling a new, or even a partially improved Western farm, nor of marketing what surplus they may produce. At best, many of them only barely live for years, until they learn the new system of farming, and learn how they can dispose of their surplus.

Then thousands have settled in that sad, fated country, where the grass-hopper has devoured all that would feed man or beast, and they having invested all in the land, and the meagre improvements, are utterly helpless, and as unable to escape from the dread want and suffering in which they find themselves, as a starved bird would be bereft of its wings. But for the gain to be gotten by rail road companies, and the greed of their agents, very many of these honest, simple people, would have settled near the sea-board, on small farms, leased or purchased—where they could embark in a system of cropping and marketing which they

understand, and by which they could have made a comfortable living at once, and they would have been surrounded by associations and customs similar to those they left, instead of the loneliness, privations, and all the hardships and trials that are the common lot of the pitiable frontier pioneer.—The low price of land in the wilds of the West, tempts the unwary to invest in a broad area; and the large farms, of course, place adjoining neighbors so remote, that all sociability and intimacy, the striking characteristics of the Germans at home, is rendered impossible, and fearful discontent is the natural and common result.

We sincerely hope that the Patrons of Husbandry will take hold of this subject, and inaugurate an effectual means by which desirable European emigrants, who are farmers, and truckers, and dairymen, who come to our country to settle in the future, will be settled on our seaboard lands; thousands of acres of which are lying out uncultivated, and can be purchased in healthy localities, with all the advantages of near market, society, schools, churches, &c., for prices nearly as low as the wild lands of the West, where none of these advantages of civilization are to be had. It is true that a large portion of each of these sea-board, southern and mid-interior farms, are, many of them, in a great degree, exhausted by long and injudicious culture, yet, there is generally some portions of each farm that, with ordinary farm management, will give a fair return for thorough, judicious tillage, seed and fertilizers applied, and a large majority of these low priced lands, may, by deeper and more thorough tillage, and the turning in of green crops, seeding with clover, and skillful management, be rapidly resuscitated, made to pay for culture and fertilizers, and made to yield a frugal living to those who purchase them, from the first.

Tens of thousands of acres of Southern lands are being sold for taxes, which, if divided into small, suitable farms, might be sold to emigrant communities of various nationalities, each, with a little means, sufficient to purchase and pay for, at

the very low price, the area that they will aspire to, and enough to build on and stock in a manner that will make them contented and happy at once.

With regard to the feasibility of reclaiming these abandoned, old plantations, by the means intimated, we would say that we know and understand whereof we speak, for we have counseled settlers on such lands, and have seen the old sedge field, the shrub pine, the sassafras, and the starved running blackberry, all destroyed by grubbing and one seasons' fallowing, and by turning in one small crop of peas or buckwheat, and applying seven to ten dollars worth of suitable fertilizers per acre, a set of clover has been secured, with which, judiciously handled, a fair crop of wheat or rye has been made, and by seeding down immediately again to clover, in five years, the land has become capable of producing good full crops.

But to do this, the products of the land must be returned to it, and the tillage must be thorough, seasonable and skillful. No definite directions as to the depth of tillage, the amount or character of it, can be safely prescribed, unless all the circumstances are known. In one case, very deep trench plowing will be judicious, and may be made to produce a crop at once, without the application of any foreign fertilizers; in another, in the same, or in an adjoining lot, deep trenching would be fatal, and plowing the surface slightly deeper than it had previously been tilled, and proper sub-soil plowing, will develop productiveness promptly, and almost any of the cereals or grasses may be grown.

The reader will please observe what a writer in the *Rural Carolinian* says of the productiveness of South Carolina, which is claimed to be one of, if not the poorest State in the Union, as compared with Illinois, one of the richest, if not the richest State in the Union.

ILLINOIS.

Present cash value in farms	\$520,506,316
Farming Implements and Machinery	34,576,587
Capital invested.....	\$955,082,933
Total value of all farm productions, including betterments and additions to stock.....	\$210,860,585
Deduct the total amount of wages paid during the year, including board.....	22,338,767
Capital invested.....	188,521,818
Add orchard products.....	3,571,789
Market or garden truck	766,992
Total income	192,859,599
Which is 20.18 per cent. on the capital invested.	

SOUTH CAROLINA.

Present cash value in farms.....	\$11,808,763
Implements and machinery	2,282,946
Capital invested.....	\$47,091,709
Total value of farm products, including betterments and additions to stock.....	41,909,40

Deduct wages and board.....	7,404,297
	\$34,505,105
Add orchard products.....	47,960
Market or garden truck	127,459

Total income 84,680,524
Making 73.8 per cent. on the capital invested.

The foregoing statement will no doubt be startling to some of our readers, but we doubt not the comparison of many other districts of the Southern and seaboard lands with the most productive of the West, would be even more startling.

In speaking of Western emigration, the editor of the *Baltimore Review*, says, "The great demoralization of the human mind in the desire to become suddenly rich, has much to do with the overlooking and passing beyond our seaboard farming lands."

Add to this what we have stated above, and the lack of energy on the part of the owners of these lands, with their old idea of "landed estates," and it is all explained how it is that we have such a vast area lying out uncultivated, and one farm after another being sold to pay taxes. If starvation does not open the eyes and awaken men, what will! We give it up.

Loss of Weight of Animals in Winter.

Reports from States, by counties, to the Agricultural Department, show that farm animals throughout the country, except in New England, lose weight in winter, at the rate of 5 to 40 per cent. being the result of low feed and lack of shelter and care.

"In Maryland there is a decline, more perceptible in those counties in which poor shelter is the rule; the loss of weight ranges from 5 to 15 per cent. Down the Atlantic coast the rate of loss increases—cause, neglect. In Virginia, while horses almost hold their own, cows and sheep show losses from 10 to 40 per cent.; yet in some cases it is reported that fed animals increase 2 pounds per day. The depreciation of farm-animals grows still more marked in North Carolina, South Carolina, and Georgia, the decline of stock-cattle in several counties reaching an average of 50 per cent."

It is legitimate to inquire, is that loss, in weight, creditable to the farmers who allow it to take place—and is it profitable? The amount of that loss—say an average of 20 per cent. added to the usual expense of feed and care, would prevent the loss; then the stock would come out in the spring in healthier and stronger condition, and present an appearance more creditable to the owners, and be in condition to thrive more on less feed through the balance of the year, as they would not require such additional feed to bring them up to normal state.

D. S. C.

*Agricultural Calendar.***FARM WORK FOR JUNE.**

It is to be hoped that the hot suns and refreshing rains of this first month of summer, will make amends, or at least greatly ameliorate the disasters caused by the cold, unprecedented and destructive weather of April, to the crops and fruits of the gardener, orchardist and planter. The necessity of greater activity and labor is more than usually apparent, for we believe with poor Richard, that God gives all things to industry; then plow deep, while the sluggard sleeps, and you will have corn to sell and to keep. Work must necessarily, owing to the season, be backward, hence the importance of remembering and acting upon the apothegm, "one day is worth two to-morrows."

CORN.

If you have not your corn up and growing finely, it is not too late to plant. On good land, well fertilized and thoroughly prepared, a good crop of corn may be calculated upon, if planted any time this month, if the seed had been well soaked so as to vegetate directly. We have seen heavy crops grown on land intended for tobacco, but failure in plants caused the ground to be put in corn. Where the planting is deferred late, it is better to get seed of corn which is early in maturing. There is a great difference in the sorts of field corn as to the time required for it to mature.

PASTURES.

If it has not been already done, it ought to have been long before this, sow a bushel of plaster and three of salt on the pasture fields.

CLOVER AND TIMOTHY.

Clover will certainly be ready to mow for hay this month. Cut it before the seeds are ripe. Do not let it get wet if possible, and put it under tight cover, with a little salt between the layers, and you can put in the mow or rick in a much greener state than if no salt was used. Should the orchard grass or timothy be advanced sufficiently this backward season to be in bloom, cut before the seed of either be more than half ripe. Great loss is sustained in the nutritious qualities of these valuable grasses, by being allowed to ripen their seeds and the stalks become woody. In forming and perfecting the seed, great exhaustion of the soil is suffered; hence the correct opinion of experienced farmers, that a crop of timothy allowed to ripen its seed, exhausts the land more than a heavy crop of wheat. Save all the hay you possibly can, for what you cannot consume, you can always sell at a

good price, but we would say the better policy is to sell no hay, unless it be a regular hay farm, but have enough stock to consume all the hay you can raise.

POTATOES.

If you have not yet done so, plant at the earliest moment your main crop of potatoes. Manure the ground highly, and use also fertilizers—those that are compounded especially to suit the wants of the potatoe. Manure highly, and keep this crop clean, and on previously well prepared land, you cannot well fail to make a good crop.

ROOT CROPS.

We cannot too often impress on the thinking minds of our friends, the great importance to put in a large crop of roots. They sometimes become absolute and only substitutes for corn or hay in feeding stock. Every body admits their importance to a good dairy yield, to the hogs, sheep and young stock. The carrot is valuable especially for the horse.

As early as possible, prepare a few acres, deeply plowed, well-enriched, and brought to a fine tilth by cultivation of plow, harrow and cultivator, and then drill in rows three feet apart, Sugar Beet, Mangolds, and about the 20th sow Ruta-Baga.

If there should be any doubt about the quantity of provender for coming winter of '76, plant largely, and add to these pumpkins, an acre or more of corn broadcast, or millet, Hungarian grass, &c.—There is nothing more profitable to the farmer to know, as winter approaches, that he is well supplied with an abundance of a variety of food for all his stock of every sort.

MILLET AND HUNGARIAN GRASS.

There is certainly a slight botanical difference and a variance in outward appearance, between these grasses to the wise men who look closely into the scientific differences of plants, but we who have cultivated both, confess that we cannot practically see any difference in the real value of each for the uses they are intended. Both or either should be cultivated whenever there seems a doubt that the provender or hay should likely be short. A few acres of one or the other can easily be sown on good fertile soil. And if even the plants are not required, the seeds will save much corn or other grain food, in feeding any stock, especially poultry.

Sorghum is a very valuable plant for forage or cured provender, sown broadcast, and cut when tender. It is full of saccharine and other fattening juices. If cut before the main stems are hardened and well cured, and then housed properly, or

in pits, as the French fashion is now, it supplies a rich, relishable food, either in winter, or while green, for all sorts of stock. We have known where it was sown after tobacco beds had yielded their plants, and when three feet high, turned under with a good plow, and being green and juicy, soon decomposed, forming a heap of humus rich in the fertilizing elements, so that the effects were unmistakable the following year, rivaling the famed guano in forcing and sustaining the growth of tobacco plants.

Sorghum well-cured, cut up in a Masticator or cutting box, which cuts in short pieces after complete laceration of the stout stems, then moistened and sprinkled with corn meal, or even bran, or unbolted ground rye, known generally as rye-chop, a half gallon of either to a half bushel of the bruised and cut up sorghum, forms a food most wholesome, cheap and relishable, for all hard working beasts on a farm.

TOBACCO.

We need hardly say, plant your tobacco the first opportunity. The season has been so harsh and severely cold and stormy, but little we fear will be planted before the last of the month. We have heard of two gentlemen who each planted several thousands of plants during May. They experimented with hot-beds and cold frames, and were thus enabled to do so. We suggested this plan years ago. It is feasible and not expensive; the seasons have become so unfavorable to the growth of this crop, that some plan must be adopted to meet the varying moods of nature. In our next number of the *Maryland Farmer*, we will enlarge upon this question, in the mean time, would be glad to hear from the enterprising experimenters. We shall also enlarge upon the advantages to be derived from this hot-bed system. It is well worth, as we said years ago, trial to at least a limited extent, and its merits discussed by practical and reflective cultivators of tobacco. June is generally a favorable month for conditioning and packing tobacco, although other work is so pressing, that the opportunity is unavailed of. We are happy to say that the prospects as to prices are bright.

HARVEST.

Let us warn you to prepare for harvest. Have everything ready when it comes, which it does sometimes very unexpectedly, forced rapidly into ripeness by hot suns and gentle rains. Make all your arrangements, extra hands engaged, reapers in order, &c., so that when harvest comes you will be like the wise virgins who had their lamps filled when the bridegroom came.

GARDEN WORK.

GARDEN WORK FOR JUNE.

This month requires all the watchful care, and all the energies of the gardener. A greater variety of work is to be done, and the grass and weeds are more rapid in growth this month, than any other month of the year; hence, he who would have a clean garden, and an abundant supply of good vegetables, must be wide awake—up and doing, from early peep of day till night stops his labors. But a few weeks of such steady toil will reap its reward, and the weeds and grass once subdued, and the plants started into full growth, he will have an opportunity to rest from his severe labor, and seek repose during a part of each of the dog-days, when the sun is usually the fiercest.

All growing plants ought to be often stirred by the hoe or rake, to kill grass, and keep the ground light and pliable. Water, if necessary. These suggestions apply to melons and all vegetable vines, and indeed to all plants that are growing, except such as are maturing.

Cabbages.—Set out plants; and if not already done, sow seeds of the late varieties at once, on a rich border, for winter cabbage. Flat Dutch and American improved Drumhead Savoy, are best; the last is almost equal to Cauliflower. The accompanying cut is an illustration of the American Improved Drumhead Savoy.



Beans.—Sow at intervals, a few rows of the snap-beans. The same with Peas. The marrow peas, such as the black-eyed marrow fat, are best to be sown now.

Asparagus Beds.—Keep clean of weeds and grass.

Leeks and Eschallots—may now be transplanted in rich, well-prepared beds.

Brocoli and Cauliflower.—Set out plants of these the first damp spell or good rain, but it will be useless unless the land was rich, and has been deeply spaded or plowed, highly manured, and put

in fine tilth. Then, do not let them suffer for water.

Small Salading of various kinds.—Sow every week or ten days, for several weeks, for a continuous supply.

Radish.—Sow radish seed for a succession. Make the beds rich and light. Best sorts for summer are the white and scarlet turnip radish.

Beets.—Sow some seeds of the long, blood-red beet, for winter use.

Turnips.—If it is desired to have turnips early in the fall, sow a bed of Jersey Navet, or of early Yellow Dutch. They are nice in September, with corned beef or boiled mutton.

Nasturtiums.—Plant at once, some nasturtium seed, 2 inches deep, in poor, light soil. Pick the seeds as soon as they are fully formed, drop in vinegar with strips of horse-radish, and they are superior to capers, with mutton, or as a pickle.

Lettuce.—Set out lettuce plants, and sow some seeds of the Coss sorts.

Peppers.—Set out pepper plants on a rich, loamy, mellow soil; water freely until well rooted. Set plants 18 inches by 12. Do not plant the different varieties near each other; they will hybridize and intermix their qualities.

Okra.—Not too late to plant okra; plant and cultivate it as you would step corn of the early sorts, in drills 3 feet apart, and 12 to 15 inches in the drill.

Onion Seed.—Not too late to sow onion seed thinly in drills, for small pickles, in autumn, or to be kept over for setts next year.

Mustard and Cress.—Sow, at short intervals, seeds of mustard—white—and cress, for salading. The two used together is very nice. Sow thick, cover half an inch deep—water daily, and cut it when young and tender. It is very wholesome at meals.

SEEDS.

During the month, several garden vegetables will perfect their seed. No seed ought to be saved, except from the best specimens of the respective plants. As the seed bearing heads develop, prune off the inferior pods or seed bags, and the weaker branches, as also the tips, except the top ones. Many disappointments arise from sowing or planting seed that are too old to germinate. When seeds are gathered, after good drying in the shade, they ought to be put in paper bags, or secured in some way, labeled and dated.

When properly saved and kept dry, cucumber seeds will retain vitality for 10 years; melon, 10; squash, 10; beets, 7; tomato, 7; turnip, 4; cabbage, 4; lettuce, 3; radish, 3; beans, 2; carrot, 2; sweet corn, 2; peas, 2; onion 1; parsnips, 1.

It is true most of these seeds will vegetate after a longer time, but it is safest not to plant or sow either of them after the periods aboved named for each.

Corn.—Plant roasting ear early corn, and let it be Stowell's Evergreen, if you can get it, as it is large ears, sweet tasted, prolific, tender, and remains a long time fit for boiling or roasting.

Martynia.—A curious vegetable for pickling—much liked by some for sweet pickles. Plant and cultivate as cucumbers. Gather the fruit when tender, and about half grown.

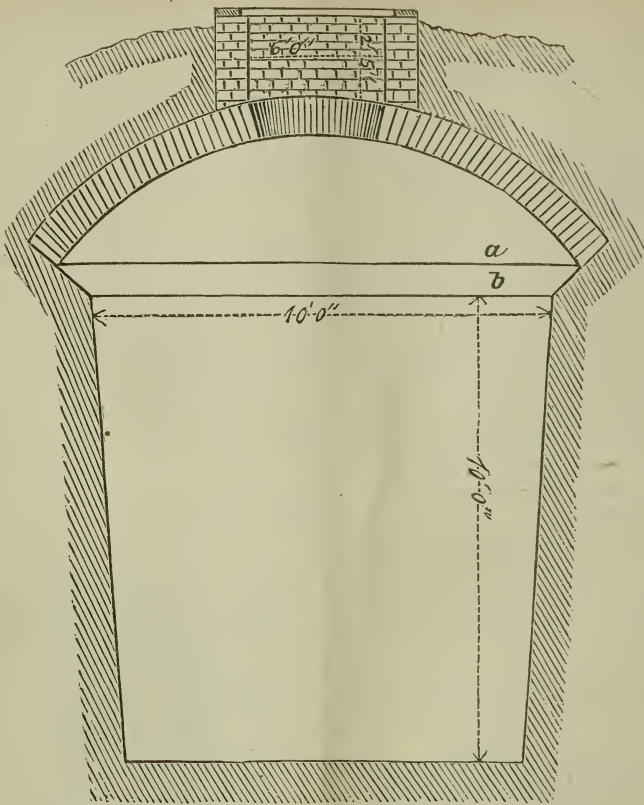
Egg Plant.—If not set out before, put out the plants 3 feet by 2, on a slight hill, over a rich lump of manure, or in ground that is rich and mellow. Its use and popularity is steadily increasing. It is a nice breakfast dish when well cooked, as broiled like a steak, or fried in batter.

The chief seedsmen have introduced this year some wonderful novelties for the kitchen or vegetable and fruit garden, such as the French trellis or climbing melon, French dwarf tomato, English



green gage tomato, Russian frame radish—seedlings from the Early Rose potato, and the Extra Early Vermont, all beating that splendid early variety, the Rose. These and other novelties ought to be tried by our amateur and our regular market gardeners. If all or any one of these great novelties on trial come up to half of what is claimed for them in their specifications and descriptions, they are acquisitions in horticulture, which cannot be too early availed of by all who are interested in such things. They are all vouched for by the most respectable of sponsors.

We give a cut of the French Climbing Melon, for which we are indebted to the Messrs. Briggs & Bros., of Rochester, New York,



Collecting and Preserving Water.

Our readers will recollect that we called their attention to this subject in an illustrated article, in our May number, in which we promised a detailed description of cistern construction, etc.—Pursuant to promise, we have had cuts prepared, by which to illustrate our favourite mode of constructing cisterns. We would premise by stating that an experience of thirty years as an improver of rural residences, both on farms and country seats, in which a supply of water, good, abundant and perennial, is second in importance to no other characteristic to be secured, we have decided, that as a rule, rain water, collected and preserved in properly constructed cisterns, embraces greater advantages than any other of the variety of sources of water supply, for the general purposes of civilized life.

WELL WATER.

Water obtained from wells is often injuriously charged with inorganic substances; the most com-

mon being carbonate of lime—though there are a great variety of substances found in solution, undesirable in water for culinary and laundry purposes. Among those objectionable for the latter purposes, are oxides of iron, and for the former, lime is particularly injurious to some constitutions as it is inclined to form urinary calculus, a serious malady.

SPRING WATER.

This is subject to the same objections attributed to that from wells: the only difference being, that the spring water flows at the surface, whilst in the wells, the veins are intercepted by excavating or boring at depths that the water is to be raised artificially.

WATER FROM STREAMS.

Water from this source, is not only subject to the objectionable qualities common to the first mentioned two sources of supply, but it often contains malarial gases, and organic substances, and in times of rain fall, is often objectionably turbid.

RAIN WATER FROM ROOFS.

In rural localities, water shed from roofs is free from all the objectionable characteristics enumerated and found in that obtained from the earth. It is as it comes from the clouds, more pure, and more wholesome than earth water. Its purity is however, liable to be destroyed, where birds are suffered to frequent the roofs from which water is collected—and it is often discoloured and rendered foul by allowing leaves and filth to accumulate and decay in gutters. Protection from these two sources of impurity, is so simple and inexpensive, that it scarcely deserves mention in this connection, and would not have been, had it not been our purpose, fairly and fully to present all the advantages and disadvantages of all the systems compared.

THE EXTENT OF SUPPLY FROM RAIN.

The average depth of rain-fall, in this country, is annually over 50 inches, but calling it 48 inches, or four feet, it yields about one barrel of water per annum for each superficial foot covered by a roof. With this data regarding the supply, consumption is next to be considered, and calculated. This may be easily done, and when ascertained, it is only necessary to provide a cistern of a capacity that will give a supply for a period of ninety days, without replenishing—as that period is equal to an unusually protracted drought, without any rain-fall.

Our experience has been, that the superficies of the roof of a dwelling, ordinarily supply an ample amount of water for the family, it covers—and the same principle holds good in supplying stabled animals.

FIELD SUPPLY OF RAIN WATER.

Water is often required on farms remote from buildings, and it was to meet this necessity that we made the effort to devise some plan. The culmination of that effort, was the discovery of a simple mode by which rain water may be collected from the surface of the earth, in times of heavy rain-fall.

This we purpose to do by simply excavating a basin, in a suitable location, to adapt it to receiving water from surface water conduits, or furrows, from an area which will yield the required amount.

Water thus collected, it is proposed to allow to stand in the pool until its turpidity is precipitated, when it is to be decanted or drained off, after heavy rain, into a cistern in the ground.

Fig. I represents a cross section of a cistern. The walls are cemented on the earth, which we have practiced for many years. The arch, covering it, and on which the earth covering rests, is of bricks.

It may be covered with wood, but the brick arch and brick neck as shown, and well cemented walls, constitute an indestructible structure—and the

additional cost of the bricks over the wood covering, is so trifling that the indestructible material is much the cheaper of the two.

It will be seen that the bearing of the arch on the earth, is, for an arch of the superficies represented, placed fourteen inches without the perpendicular of the wall. The earth covering should not be less than five feet in depth. Water covered to that depth will be of the same temperature, about 60 degrees, throughout the year. It is our purpose to pursue this subject further in the future, as we consider it one of very great importance to many of our readers.

SMALL FARMS—GARDENS.

Other things being equal, small farms are better for the general welfare of a community. They make neighbors closer and more numerous to support schools, churches, and good roads; while small farms are almost always better, and more profitably cultivated—more thoroughly, than large ones.

FLOWERS AND PLANTS.

The small farm of John Slater & Son, near Alexandria, consisting of about a dozen acres, yield more profits, annually, than many large farms. He raises vegetables and choice flowers, making a specialty of the most rare roses, in large variety. This little place is made profitable by the getting of two or three crops a year off the same land—various plants and flowers—the land being deeply and thoroughly cultivated and judiciously fertilized, is capable of two to three crops.

Not far from this one is another, in Alexandria Co., very handsome small farm, of about 30 acres, owned and worked by M. C. Munson. While he has some heavy land, he has more that contains much gravel and cobble stones; these he utilizes to good advantage, that pays for picking up, by making *underdrains*, of the stones and gravel; digging them two to three feet deep, and one foot wide at the bottom, then filling up to within about one foot of the top with cobble stones and gravel; then putting back the soil on this; it makes a cheap and effective underdrains. I notice one thing that Mr. Munson, and others farmers, hereabouts, neglect too much—they do not use the *roller* enough—in spring and fall, to crush, pulverize, and smoothen their fields. They are useful, in spring, when grain and grass has been partially thrown out by the freezing and thawing of winter, to roll them back into the soil.

Near by I notice another fine little farm, about the same size, owned by Sewell Corbitt, well cultivated, and stocked with handsome horses and cows—and fine fruits.

D. S. C.

CORN FOR FORAGE.

The growing of corn for forage is so generally done by seeding it broad-cast, that in speaking of this crop, it is common to call it "sowed corn." The forage corn crop, on farms on which mixed husbandry is practiced, and soiling extensively prevails, if properly grown and handled, is often the most profitable one grown; but no crop will pay, if managed, or mismanaged, as we have often seen it. After crop corn is planted, and all other spring crops are disposed of, a boy, or a "no account" laborer, is sent to plow some barren spot, on which there is no sward, or anything else, that can yield food for a crop, for a fodder corn patch. By this time the ground has generally become too hard to plow, so that it is "tickled;" but this kind of tickling never produces a smiling crop, and rarely produces an apology for a crop.

The half-tilled land is then often unskillfully sown with crop corn broad-cast, on the slovenly furrows; here too thick, there too thin, and not unfrequently spots or belts without any seed.

The harrow or shovel plow is carelessly run over the surface, and, perhaps, the cool benediction of, "there, grow if you can," is pronounced over the half-buried seed, as a barbarian of a seedsman bids adieu to the field, until the harvester comes to look for the crop. Then comes the verification of the Scripture, "as ye sow, so shall ye reap."

Of course, there is not a crop, and what little product there is, is generally needed by the class of land murderers who would put in a crop as we have truthfully described, ere it is manured; so the meagre growth is cut ere it is half grown, and three hungry cows will eat the product of an acre at a meal, and then feel as though a little dry hay would make a pleasant desert.

But this land holder has now become an experimental farmer, and when asked his opinion of the economy of growing corn for forage, he denounces it, and declares that he is satisfied from his experience, that it is one of the crops that is only grown in books.

Now, dear reader, we will give you our personal experience of over 20 years in growing forage corn, both as a green, soiling crop, and for curing for winter use. We considered the crop as profitable as any we planted, and knew that we need not expect a full and paying crop, unless we planted it properly, in proper season, and on land adapted, and in condition to feed the crop to maturity—if this last condition was lacking, we supplied it, and manured most liberally, for no crop, to be a full one, will bear a greater amount of fertilizer, of the right kind, than the fodder corn crop. We usually

took a portion of the regular corn crop yield for the fodder corn, unless it lay too far from the barn, for convenience in soiling.

We found that planting in drills, $1\frac{1}{2}$ bushels of seed per acre, the drills but 2 feet apart, made, with good seed, good manuring and good tillage, a crop that was often worth more than the best crop corn we had, acre for acre; in fact, in seasons of excessive drought, so common laterly, we have made an acre of the green forage corn worth more than twice the area of the grain crop land.

Although we always aimed to avoid over stocking, yet it has occurred with us more than once, that we would have been obliged to feed our crop corn in the pasturing season, or put the stock on dry forage.

Under the influence of the double calamity, of the dearth of rain, and myriads of grasshoppers, with a dairy of 25 head of cows to feed, three acres of well grown, succulent, green corn fodder, is more useful for its purpose, than so many acres of "greenbacks" would be.

SUN FLOWERS.

There are few things about a residence that gives a lively, healthy and prosperous appearance better than plenty of the tall, stately and glittering sunflower plants. In my boyhood I remember in the Genesee country, that my father raised acres of them, and found it very profitable, as they yield bountifully and it is not difficult or laborious to produce them. The seed makes highly beneficial feed for horses, poultry, sheep, and in fact all farm stock; but for horses—a quart a day—in their other feed, they are particularly excellent, to keep them lively and spirited, with a smooth glossy coat. In the Genesee county, and along the western rivers, growing sun flowers are esteemed highly as health promoters.

"Attention is called by the editor of the *Journal of Applied Science* of the great value of the sunflower plant in various economical applications.—According to this article, the sunflower can be cultivated very readily, an acre of land sustaining 25,000 plants at twelve inches distant from each other. The flowers are very attractive to bees and furnish a great amount of honey. The average production of seeds may be estimated at fifty bushels to the acre, yielding fifty gallons of oil. This is said to be equal to olive oil for table use, and is well adapted to burning in lamps, soap-making, and painting. The refuse of the above quantity of seed will produce 1,500 pounds of oil cake, and the stalks may be either burnt to finish potash, or when treated like flax, may be made to yield a fibre as soft as silk, and in large quantities."

I feel sure that every homestead will enjoy better health for growing plenty of sunflowers around it,

D. S. C.

GYPSUM OR PLASTER.

Sulphate of lime, commonly called "land plaster," is extensively used in almost all long settled parts of the country, and especially where red clover, *Trifolium pratense*, is grown.

Few, if any, cultivated crops respond more promptly to an application of plaster than red clover. In an experience of fifty years with the use of gypsum, as a promoter of vegetable growth, we are not aware that we have ever known an application of it to clover unproductive of beneficial effect.

We have heard farmers complain of their land having become "plaster sick," and have often asked if an experimental plot had always been left by them in applying plaster to their crops, that a comparison might be made of crops produced with and without plaster.

The answer has been invariably in the negative. The conclusion, that the plaster had no effect, was arrived at by judging that the crop was not what it should have been. This suggests a repetition of what we have often recommended to our patrons, viz: never to apply any fertilizer of any kind, to any crop, without leaving a portion of the crop without any application that the effect, and the extent of it, if any, might be known with certainty. Guessing by farmers, instead of carefully weighing and measuring, has often resulted in error.

A striking example of the effect of governing an important branch of production by guessing, is illustrated in the following: Two farmers, on adjoining farms, of a similar quality of soil, who raised the same variety of corn, practiced planting and cultivating very differently, and each insisted that his crop excelled the other. One planted 3x3 feet apart, and 4 to 5 kernels in each hill, allowing all that grew to stand. The other planted 3 feet 6 inches each way—planted 4 to 5 kernels, and thinned to 3 stalks in each hill.

After each had pursued their favorite course several years, they finally concluded to measure an acre of each.

It resulted in finding that the crop with the least number of plants, yielded over twenty per cent. more merchantable corn per acre than the other, and about five per cent. greater weight of corn of good and indifferent.

We could cite numerous instances, where results attained by carefully conducted experiment and weighing, or measuring, has developed grave errors, and led to the adoption of a more profitable system. Numerous experiments made by us, with the use of gypsum, has established the conviction, that

all crops grown in the North are benefited by the use of plaster; and that 100 lbs. per acre, for any crop, in one application, is ample; but, what led us particularly to consider this subject at this time, is the necessity of calling the special attention of the farmer, to some very important features in this connection. First, that one peck per acre of gypsum, ground to an impalpable powder, and applied after vegetation has somewhat developed, will be more beneficial than three bushels per acre, applied in the coarse condition that it is generally found on the market.

The discovery of the effect of plaster was purely accidental. It was made in France by laborers, who worked in making plaster casts of statues, images, etc.; and, as they walked across a field, in grass, they removed and shook their aprons.

The dust thus scattered, had a perceptible effect on the growth of the crop, and soon led to the use of this substance as a fertilizer. There are authentic records of the beneficial effects of an application of three to four bushels per acre, of ground gypsum, continuing to be perceptible in the grass for several years.

It requires 500 parts of distilled or rain water, to dissolve one part of finely powdered plaster, and it is believed that the full benefit of an application of it, is not realized until it is all dissolved, and taken up by plants. If this theory be true, it will certainly be judicious to apply it so as to have the fullest benefit of the rainy season.

Farmers, look to your interest, and do not purchase coarsely ground plaster for your crops. Our experience is against its use on undrained, wet, sour land. Apply it experimentally on all crops every year.

WATER DITCHES.—The ditches of California are the great arteries which bring life to the mines. Their even and constant flow secures a healthy and vigorous state of industry, while the dearth of water in the mines throws a pall over the business world of Californian, money becomes tight, and hard times are the consequence. The engineering skill displayed in the construction of ditches in this State is of the highest character, accomplishing the most daring feats, hanging flumes on steep rocky bluffs, and crossing gorges of a thousand feet in depth, and it must seem almost a presumption to inquire whether any improvements can be suggested.

In conversation, the other day, with Judge Brown, who owns a large farm, he remarked, that he "regarded agricultural writers and papers as the benefactors of mankind generally, by helping them to get more and better provisions," D. S. C.

MANURES.

There is, perhaps, no subject, a full and intelligent consideration of which is of such great importance to the farmer, as is that of manures.

They constitute those elements in soils, without which production is impossible; and those elements are not found to exist largely in soils generally, in their native condition. That this is true, is well established by universal experience.

Continuous cropping, without manuring, have everywhere and always resulted in impoverishment, and finally in barrenness.

With this axiom before us, how important that the producer should heed promptly and intelligently, the invaluable lesson it so forcibly teaches.

Statistical facts, recently developed through the valuable investigations conducted by the Department of Agriculture, by correspondence with the leading spirits of every part of the country, and published in its valuable Reports, present numerous very interesting and useful facts to both producer and consumer. It appears that responses from over one thousand counties, embracing thirty-five States, have been received in reply to inquiries propounded by the Department. We are informed by the statistician, that farmers are making some progress in learning the necessity of husbanding, and in every way increasing the stock of plant food, known in all its varieties, in common parlance, as manure; yet, we are also informed, that a degree of prodigality exists to the lamentable extent, that in about one-half of the counties of the United States, no fertilizers are used in cropping.

Many laws are on the statute books of every State, less important and more unjust, than one would be which compelled every producer to carefully husband, and apply to the soil, all the refuse of crops produced therefrom.

Had such a law existed, and been enforced throughout the country, from the settlement of every locality down to the present day, the value of our arable land would be fully three-fold greater than it now is, and the influence of the observance of such a law, would have begotten habits of frugality and industry in producers, the value of which could scarcely be computed. The effect of the fallacious idea entertained by pioneer farmers, that their "soil is rich enough," that "there is no need of returning to it the refuse of their crops," is similar to that produced on the boy, who concludes that his "father is rich enough."

A boy with such an idea is never of any use to himself, or to the world, until his mind is disabused of it; and that is rarely accomplished until the lesson is taught by want.

It behoves us to be as frugal and judicious in the use of manure as in the use of money. Let us all be discreet with both, and want will ever be a stranger, and plenty will preside over our farms and households, with which, and that priceless blessing, health, we possess the two great essentials of temporal happiness.

Top Dressing—Winter Killing—Drouth.

The lessons of experience are often costly, but then they are unmistakable and reliable; and the disasters to field crops—grain and grass—of the past severe winter, are of that kind. Had the winter wheat and meadows been well *top-dressed* with manure or compost last fall, they would not have suffered from the winter freezing and thawing; the fine manure or mulch would have protected the crops, by sheltering their roots, and falling into the cracks and crevices caused by the heaving and moving of the soil from the operations of the frost; besides affording timely stimulant and fertility to the fine roots, as it was washed down by the rain and snow. I have never seen a field of wheat or meadow injured by the winter, when it was top-dressed in the autumn with a light covering of manure, compost, muck, or leaves and straw; then, during spring, before the grain or grass is grown enough to cover and shelter the ground well, this mulch serves as a good shelter and fertilizer; and it has come to be known, by most observant cultivators, that, in this way—as a top-dressing—is to be found the best and greatest use of manure; that, application to the surface, is the best way to obtain the advantages of manure—it serving to shade the soil as well as to fertilize it; and many intelligent farmers regard *shading* the surface of as much importance as manuring it; such is the opinion of Mr. Saunders, at the Agricultural Department. The writer has succeeded in raising large yields of fine, sound, winter wheat on lands in Illinois and Wisconsin, by a light top-dressing of manure, where, otherwise, winter wheat could not be raised at all; and, in the same way, timothy meadows and clover fields were made to produce twice as much as they would do without it; farmers will do well to remember this fact, and practice it.

Thoroughly *underdraining* land, and deep plowing of it, so that it may be dry and porous, with no water standing in it, within two feet of the surface, is a general preventive of winter killing, to grain, grass and fruit trees; for, if there be no excess of water or moisture in the ground during the winter, there will be no heaving and throwing out of the roots of crops, or drowning and blighting the trees.

D. S. CURTISS.

Different Kinds of Lime.

There is a very important article on this subject in the March report of the Agricultural Department, which shows the value of different lime quarries on crops, and the evil effects of magnesia. Lime burnt from stone that contained a large percentage of magnesia proved uniformly detrimental to the land or crops; while that containing very little magnesia proved as uniformly beneficial: the report states that,

"Mr. Abraham McMurtrie, of Belvidere, Warren County, New Jersey, had for many years past, made use of the *dark, steel-gray limestone* of that locality, for agricultural purposes, and has repeatedly found that the lime produced from it seemed in nearly every case to have a rather injurious effect, but was wholly unable to account for it.—When the lime was placed out in open fields to slake, the spots occupied by the heaps, even when the lime was removed very carefully and no appreciable quantity was left behind, remained perfectly barren for two or three subsequent years.—Very frequently the crops to which the lime was applied showed indications of an injurious action in a very decided manner, and this influence always appeared more marked in wet than in dry seasons.

"Believing that a change in the kind of lime employed would at least occasion no loss, Mr. McMurtrie was induced to try a lime produced from stone taken from a quarry three or four miles distant, and said to be particularly beneficial in its results. This limestone was of very *light gray color*, somewhat resembling granite in appearance, and the lime produced from it, when thrown out in heaps to slake, though rather dark at first, upon slaking changed to a *light buff-color*. Its effects seemed to be almost directly opposite to those of the lime previously employed; and the difference between the effects being so decidedly marked, it was considered of some importance to investigate the cause of this action by means of chemical analyses.—Samples of the limestone were therefore obtained and analyzed with the following results:

No. 1, limestone, the burnt lime from which produced beneficial results, contained as follows:

Moisture.....	0.70
Carbonate of lime.....	92.61
Carbonate of magnesia.....	0.914
Oxide of iron and alumina.....	2.06
Silica.....	3.75
	100.034

No. 2, limestone, from which the effects were bad, contained as follows—a large quantity of magnesia:

Moisture and organic matter.....	1.30
Silica.....	3.31
Peroxide of iron and alumina.....	2.12
Carbonate of lime.....	51.20
Carbonate of magnesia.....	42.20
	100.03

"A glance at these analyses is sufficient to show that the deleterious effects of the lime produced from the limestone from the quarries represented by No. 2 are due to the high percentage of magnesia they contain, and that the beneficial effects

of the other lime is due to the absence of this constituent."

"Many agricultural chemists acknowledged as authorities fail, in their writings upon the subject of mineral fertilizers, to note the fact of the injurious action of caustic magnesia upon vegetation, and in fact the only writer who seems to have recognized it is Sir Humphrey Davy, who reports experiments upon this subject made by himself, and others, made previously by Mr. Tennant. He explains the injurious effects upon the theory, since confirmed by experiment, that caustic magnesia in presence of caustic lime absorbs carbonic acid very slowly, and that on this account remaining a long time in the soil in the caustic state exerts the deleterious influence noticed in the limes mentioned above. The limes in question were applied to rather light sandy or gravelly soil but, according to Davy, the same lime might be applied to heavy soils, containing considerable quantity of organic matter with decidedly good results, and that upon light soils, where pure lime is not obtainable, the magnesian limestone should be applied in small quantities. The caustic action of the magnesia may in such cases be very materially ameliorated by a tolerably heavy application of stable manure."

As the lime question is being pretty widely considered by farmers generally, and comparative values of different limes are being discussed by agricultural clubs, the above statements, from the agricultural report, may be of much benefit in aiding to arrive at correct conclusions, on the subject, and relieve farmers from considerable expense, in learning from other sources. At least, they may be admonished, in season, to avoid the magnesian limestones. It is thought, by some, that the magnesia combines with the water and the sand, which are in the soil, and forms a sort of hard cement in the soil, in which plants cannot thrive; and hence the effects are due to that combination; but others doubt this theory. But, whatever the specific reason, the bad effects are plain and the lesson taught, is to use lime that is as free from magnesia as may be.

The report says, in regard to the cement theory, above suggested:—"This can not, however, be considered a correct theory, since these magnesian limestones have been used upon clay soils and their application to such soils has no deleterious effects. It would seem that the magnesia reacting upon the silicate of alumina forms a double silicate of ammonia and magnesia, thus neutralizing its causticity, and that the injury consequent upon the application of magnesia lime to sandy or gravelly soils is to a large extent due to a deficiency of clay."

When doctors differ the farmers will practice what is known to be satisfactory. D. S. C.

It is estimated that \$98,000,000 are spent in the United States annually for repairing fences alone. The good old sentiment, "Millions for de-fence," isn't dead yet, we're glad to see.

HINTS ON CARRIAGE ROADS.

Passing a property, in company with a friend, after the frost had gone, we found a front wall thrown down by the frost. There was a cut of some three feet which this wall supported, and of course, the earth on the private property was on a level three feet above the street. In explaining to our friend, that if that had been a dry wall, instead of a mortared wall, the accident would never have occurred, we were astonished to find how little even men of superior intelligence know about these every day affairs, which so intimately affect their pockets; and, though we endeavored to show him why that wall fell down, and why that one did not, it is questionable whether he really understands to this day. If he had to build a wall to-morrow, on the spot where this one fell down, he would no doubt put up a mortared one just as this one was, and probably is now, if again rebuilt. We suspect this from an observation he made when we finished the explanation, that "he knew of many mortared walls, under similar circumstances, that had not fallen down," and, it was "doubtless from bad workmanship." Some of our readers may be more plastic, and we will try on them what has failed in the other quarter.

We say the freezing of the earth pressed out the wall, but it was not so much the freezing of the earth. Earth cannot freeze. It is the water which the earth contains that freezes, and it is only when a mass of *wet* earth, behind the wall freezes, that there is expansion enough to throw the wall down. If the wall had not been cemented, but had been a dry wall, that is a wall without any mortar or cement, there would have been no collected water behind it. It would have rather acted as a drain, drying the earth behind it, and with little to freeze there would have been little expansion, and the wall would have stood its ground. There are, as our friend well observed, plenty of cases where mortared or cemented walls are not thrown down by frost, but these are in cases where no water of consequence collects behind the wall, or where the wall itself is so thick, that very little frost gets far beyond. Sometimes we have a soil behind the wall, through which water readily sinks to below the level of the wall, or the ground is of so firm and compact a nature, that little water penetrates it at any rate; or there may be numerous large trees whose roots will always keep the earth so dry that there is little to freeze during the winter, and any and all these causes, make a protection against frost injury to a cemented wall.

The purpose of this anecdote is to afford a hint as to road making. If a road is properly drained

before the stone is put in, it will not need near as much material to make the road properly as it would otherwise do, and when once made, it will not get out of order so soon, as it is the freezing of water in roads, and thus the lifting and loosening of the material, that makes such fearful havoc in the spring, when the frost is coming out. It is a strange and fearful sight to see some "road makers" at work. They dig out the dirt, and pile in the stone, and that is all. Let us hope that these things will be done more intelligently some day.

KALSOMINING WALLS OF ROOMS.

Many people would like to have the beautiful effects of kalsomining their rooms, but do not feel that they can afford the expense of employing a professional operator to do it; and for their benefit, I submit the following plain instructions from an Eastern paper, having myself seen it done pretty much in this way, and with very pleasing effects:

"Buy the best bleached glue if the walls are to be white or some light tint, (if dark, it is immaterial, so the glue is clean,) and use it in the proportion of a quarter of a pound of glue to eight pounds of whitening. Soak the glue over night; in the morning, pour off the water, as the glue simply swells while soaking. Add fresh water, put it in a tin pail, and set that in a kettle of boiling water. When dissolved, stir into it the whitening, adding enough water to make it, after mixing, of the same consistency as common whitewash. It may be tinted any color desired; and is applied with a whitewash brush. If the color is rubbed smooth in a little water first, and then mixed with the wash, it will be more even. If the walls have been previously whitewashed, scrape away all that will come off, and wash with a solution of white vitriol; two ounces in a pail of water. The vitriol will be decomposed, forming zinc white, and plaster of Paris, to which the kalsomining easily adheres. It is important to dissolve the glue in a hot water bath, for if scorched by too great heat, its tenacity is impaired or destroyed. Whitening is simply chalk, freed from impurities, and reduced to a fine powder, and, is also known under the names of Paris and Spanish white, though the latter is really a white earth found in Spain.

There is a great difference in whitewash brushes, and the beauty of the work as well as the ease of performing it, depends very much on a good brush, making it well worth while to pay the difference between a good one and a cheap one. For the inexperienced, it is more difficult to lay on tints evenly than pure white."

For those who have not had experience in using or dissolving glue, it is well to say, that the dry glue should be spread in a broad flat basin, like a shallow milk pan, and cold water enough poured on it to fairly cover it; then let it lie over night, or for a day, when, if the water be not all absorbed in the swelling glue, the excess should be poured off, when fresh water will be added, in which to boil the glue, to be mixed with whitening. D. S. C.

RUNNING MANAGEMENT OF FACTORIES.

X. A. Willard :—The farmers of this section, in consequence of the low prices they receive for their milk during the summer season, and the difficulty they experience in finding responsible dealers, which has resulted in much loss and annoyance, contemplate erecting a creamery and cheese factory, with the intention of providing by that means a way where they can dispose of their surplus milk, and also of regulating to some extent the supply in New York, which of course governs the price there.

They find themselves, however, in need of practical information in regard to several points, and I have been requested by the farmers, at a meeting held some days since, to communicate with some practical man in relation to the general management and profits of such establishments, and have been referred to you as being a gentleman capable of giving such information, and I therefore take the liberty of addressing you upon the subject.

We would like to ask, first if creameries and cheese factories are owned generally by stock companies, organized by the farmers or by individuals, and if the former, how is the price for milk arranged with the farmers?

We propose to raise money sufficient to build the factory and equip it fully; but then the question presents itself how are we to manage the workings of it and regulate the price received for our milk? If, on the other hand, such factories are owned or leased by individuals, will you please inform us about what was the average price per quart paid to the farmers for their milk delivered to the factory during last summer and what is the capacity of ordinary-sized cheese factories?

If such an establishment were erected in this vicinity, being only 45 miles from New York on the Harlem Railroad, and sufficient milk were assured to the lessee to keep the factory running to its full capacity, do you think that a good, practical and responsible man could be found in your section who would take such a concern at a nominal rent and operate it and pay a fair price to the farmers for their milk, and would not this be the better plan for us to pursue in case we erect such a factory?

We are greatly in need of such relief as a creamery and cheese factory would afford, and if you will be kind enough to give us your views concerning the above questions, together with such suggestions and advice as you may perceive our case requires, you will confer a very great favor upon us.

Golden Bridge, N. Y.

J. W. CAMP.

I. CREAMERIES and cheese factories are owned by stock companies organized by farmers and also by individuals. In both cases the cost of manufacturing, whether it be butter or cheese, is the same to the farmer. Thus, for instance, if it is a stock company the business of manufacturing and furnishing the supplies needed, such as annatto, salt, bandages, boxes, &c., is managed on the stock-company plan, and the company charge the farmers, whether they be stockholders or otherwise, a certain rate for making up the milk into butter or

cheese and preparing it for market. The farmers select some one in whom they have confidence to sell the product, from time to time, in bulk, and each one delivering milk gets his share of the money on such sale in proportion to the quantity of milk delivered, less the sum charged for manufacturing. For manufacturing and furnishing, when the milk is used for cheese, from \$1.75 to \$2 per 100 lbs. is charged. If the milk is turned for butter making, the charge is from 4c. to 5c. per lb.; and if skim cheese is made in connection with the butter, say 2 cents per lb. is charged for that. These charges are supposed to be sufficient to pay the wages of the manufacturer and his assistants, together with the furnishing goods and all expenses for running the factory, leaving a balance as a dividend to be distributed to stockholders in proportion to the number of shares held by each.

In this plan it will be seen the company affairs are kept distinct from the milk delivery or sale of cheese, although the same persons are interested in both. In other words, the manufacturing and factory management is on the stock-company plan while the delivery of milk and its product is an individual affair.

2. Where one man owns and runs a factory the charges for manufacturing are the same as those named on the stock plan; and the product is disposed of in the same way, the manufacturer having no pecuniary interest in this matter. For convenience to farmers the manufacturer or manager of a factory is often chosen as a salesman, though he may be directed from time to time by a committee appointed by the patrons of the factory.

3. The practice of buying milk from farmers to be made into butter or cheese is not common in Herkimer and the adjoining counties, though in some instances it is done. In other parts of the State and at the West this system is gaining ground. As no one can tell in the Spring what milk will be worth for manufacture into butter and cheese during the whole season, the following plan has been devised for fixing the price of milk to be paid to farmers :—The sales of cheese from two or three well known factories are agreed upon between the buyer of milk and the farmers as a standard for the average price of cheese. Now, as it has been found that on an average ten pounds of milk will make one pound of cheese, the buyer pays the average price obtained at the three factories, for every ten pounds of milk, less the price for manufacturing.—Thus for instance, the cheese made from the milk of April is marketed in May. The May sales then from the three factories regulates the price of milk for April, the June sales for the milk delivered in May, and so on to the end of the season. This is

found to be a very satisfactory arrangement for both buyer and farmer. The farmer gets the average price for his milk the same as if it had been made into cheese, while the buyer pays no more for milk than the market warrants. He takes the risk of making as good an article as is made at the three sample factories selected, and also of getting an equal price in the market for his goods, and he gets the regular price agreed upon for manufacturing. This plan is regarded as an improvement on the old system, as it simplifies the matter for farmers while it gives the factorymen a chance to turn the milk into butter and skim cheese or to dispose of it in such way as will yield him the best returns.—*Rural New Yorker*.

Alexandria and Baltimore.

In the *Virginia Sentinel* is the following, in regard to the early history and present status of the above cities:

"On the 4th of September, 1777, Mr. Elkanah Watson left Providence, R. I. to go to South Carolina. After a journey of seventy days he reached Charleston. In returning he passed through Alexandria, situated on the Potomac. Its streets were laid out after the plan of Philadelphia, on a large scale, in anticipation of becoming a great city; considering its peculiar advantages of position, at the head of bold navigation of one of the noblest rivers in the world.

"A strong commercial rivalry will, it is expected, spring up between Baltimore and Alexandria. It appears probable that the peculiarly favorable position of Alexandria will secure to it the pre-eminence.

"On the 3rd of December, 1784, Mr. Watson again visited the South; and reached Baltimore.—It had greatly changed since 1777; at that time it contained about 1,000 houses, and 6,000 inhabitants; now, both had doubled in the short time of eight years. Alexandria had made decided advance, but exhibited no comparison in progress, to its vigorous rival Baltimore. Wide-a-wake Baltimore took the prize, becoming a "great city," which nature had provided in favor of Alexandria."

Still, to-day, the people of Alexandria possess much good taste and success in business, and in the production of fruits and flowers; while many of the farmers, in its vicinity are enterprising and thrifty, being readers of the MARYLAND FARMER, as of other papers.

JOHN SLATER & SON, are now among the most popular and extensive florists, in Virginia; their fine grounds and conservatories are near the city of Alexandria. Roses, of the rarest sorts, are a specialty with them; their plants and flowers find often market in Washington.

D. S. C.

WOODLAWN FARMERS' CLUB.

This Society held its April meeting on the 17th, at the farm of Col. Edward Daniels, Gunstore, Fairfax County, Va.; Chalkley Gillingham, President, and N. W. Pierson, Secretary.

Col. W. H. Chase was elected a member. He is making a fruit farm, and building a residence, at "Bay View," on the Potomac, near Col. Daniels.

APPLICATION OF LIME.

The proper mode of applying lime to land was discussed at some length. The English method of distributing lime on land was given, which was to put the fresh burned lime in heaps of about half a bushel on the upturned sod, covering it with earth, and leaving it to slack. After becoming thoroughly slacked, mix together, and spread over the land. It is claimed by those who practice this mode, that the lime becomes a finer powder, and the earth absorbs the valuable gases, which escape in the process of slacking. A member objected to this process, as being too much labor. The usual mode of spreading direct from the wagon could be done in half the time. Others thought there was but little benefit to be derived from the gases which escape in slacking, in the proof of which, "Johnson's Agricultural Chemistry," was referred to as authority.

After partaking of a handsome and bountiful dinner, provided by Mrs. D., a discussion of some length was had, as how to destroy the depredating insects which infest fruit trees. Ashes and a small quantity of salt was recommended as a good application for all fruit trees.

The President recommended a wash made of soft soap, or whale oil soap, with a little lime, as excellent to apply to the body and large limbs of all fruit trees. The application to be made in the month of June every year. This mixture would destroy insects and their eggs, and being white, would absorb the rays of the sun less than the brown bark, which he claimed was an advantage in this climate.

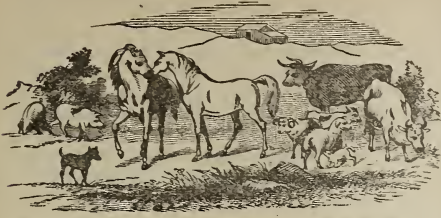
The Critical Committee reported favorably on the Colonel's dairy stock, which he feeds well with cut hay and ground stuff. The running out and trespassing of stock was a reminder, and brought out an expression from many members of the Club, of their determination to strictly enforce the stock law without fear or favor.

The next meeting of the Club will be held at Levi Stiles, on the 15th of May.

The Critic Committee for that place, are Charles Boughton, S. W. Mason and William Mason.

D. S. C.

[The above was deferred from our last issue.]

Live Stock Register.**Care of Young Stock.**

Colts, calves, pigs, lambs, and the young of the feathered tribes, are all "in order" now. They all require special care and attention at their tender helpless age. A little extra care at the critical age with young animals, will often save the life of what will make a valuable animal. We often hear the result of neglect, called by live stock men, "bad luck," when speaking of their losses in various ways with their animals. The fact is, that a majority of cases, called bad luck, are but the result of neglect. We once knew a farmer who had a fine brood mare, the date of coupling with the horse he had neglected to record: but there were unmistakable evidences that the time of parturition was nigh, and he knew that the mare should be confined to a suitable box stall and small paddock; but to save a little hay he turned her into a swamp pasture in which were miry places, that grew tussocks on which there was early grass. The mare forced by hunger, waded into the mire in pursuit of food, and strained herself by struggling in the mud, until it produced a premature birth. The foals, for there were twin horse colts, were dropped in the cold mud, and were soon chilled to death.—A neighbor who saw them, said that he would have given \$300 for the colts as soon as they stood and nursed. We heard the offer, and the owner replied, that is "another case of my bad luck." "*Bad luck*," repeated the gentleman, "it is not bad luck at all—you deserve a worse punishment for such parsimony and stupidity to save a few hours labor and a few dollars worth of feed, to turn that valuable mare, in her critical condition, where no sane man would turn any horse."

We were a listener to the above severe and just reproof, and we attended a Sheriff's sale of the effects of the owner of the mare a few years subsequent.

We have known similar neglect in the management, or rather want of management, with breeding animals many times.

The animals frequently survive the neglect, but

are often injured and stunted, and their future value even impaired to the degree that makes just the difference between profit and loss. It is frequently attributed to "bad luck"—when it may generally, be traced to neglect, and want of judgment. The stock farmer should remember that his failure or success depends on the skill and fidelity with which he discharges his duty to his breeding animals at the season of increase. "A word to the wise sufficeth."

A PROLIFIC COW.

The Irish Farmer's Gazette notices a Short-Horn cow of the Maynard blood, called Milkmaid, in Col. Gunter's herd, which is said to have produced four calves in eleven months. On the 7th of January last she gave birth to a twin of good heifer calves by Fifth Duke of Wetherby, and on the 9th of December she again calved twin heifers to Eighteenth Duke of Oxford. She is reported to be a favorite cow of the Colonel's, and no wonder. Although only seven years old last March, she has enriched the Wetherby Grange herd with five female and two bull calves.

The extraordinary fecundity of Col. Gunter's "Milkmaid," is very unusual, and some might be of the opinion that her value was greatly enhanced by her great fruitfulness, and by her bearing a plurality of young at a birth, that her offspring might inherit that characteristic, and that a family of short-horns might soon be established that would increase with nearly double the usual rapidity.

This is not impossible, if the females of twin births should breed; they may inherit this peculiarity of the dam, but it is claimed that such females are apt to be barren both in the bovine and equine races.

If any of our readers have any experience in such animals, we hope that they will communicate it for publication.

We think however, that ordinarily, that one good calf will be worth more than twins. We have had two pairs of twin oxen, they were all under size, though well reared, but were healthy vigorous animals.

ON BREEDING HORSES.

An old breeder of Tennessee, George T. Allman, in the *Rural Sun*, gives his ideas of improving stock. He says:—"I beg and urge each and all to patronize only pure-bred males and never a mongrel. 'Blood will tell' in everything, from a chicken to a man. If you propose to breed trotters, or mules, you want a dash of blood to give the produce the staying qualities desirable on the farm or on the turf.

I prefer early foals, especially if thoroughbred. A few weeks' difference tells on the race-course or in the fair ring. They go through the first winter much better than late ones.

Fillies who have never produced, should be bred so as to drop their foals middle of April or first of May. The trouble with all young dams is to give milk enough for their offspring, hence the necessity of having the produce drop when there is plenty of luxuriant grass. I hold that our true policy is to breed only the best—have them well cared for. The days of pay or pleasure in handling inferior stock are numbered among the things that were. So of half-feed and poor accommodations for the comfort of your stock. A few good ones, well cared for, afford more pleasure and profit than a host of inferior ones, fed on shucks and promises. I find grass the cheapest feed I can grow for stock, and a meadow to pay the best of any land on my farm.

Remarkable Cattle.

We clip from one of our favorite exchanges, *The Turf, Field and Farm*, the following items:

HEAVY CATTLE.—Messrs. Bedford & Co., of Bourbon County, Ky., shipped recently to this city nine head of Durham cattle, for Christmas beef, raised by A. H. Brand, of Fayette County, that weighed 22,626 pounds, or an average of 2,514 pounds each.

HEAVY STEER.—Mr. W. E. Wilkerson, of Madison County, Ky., has a steer which tips the beam at the enormous weight of 4,110 pounds. An infant of the same persuasion was shipped last week for New York, weighing 3,110 pounds. The name of the youngster is George Alford. Several butchers in Washington Market are in daily expectation of receiving from Kentucky prize oxen.

MODEL NEW-ENGLAND COW.—Mr. Edward P. French, of Bedford, N. H., has a grade Durham cow which, during the seventy-five days ending in July last, gave an average of 26 1-5 quarts of milk a day; and for the next twenty-five days in August gave 23 quarts a day, or an average, for the hundred days, of 24.94 quarts a day. Mr. French has kept her tally for the hundred days from August 25 to December 3, and the amount is 1,811 1/2 quarts, or 18 1-5 quarts a day. Her yield for the two hundred days was 4,305 3/4 quarts or over 21 1/2 quarts a day. This cow took the first premium at the State Fair for the best cow for milk. The weight of the milk produced during the two hundred days was 4 tons 880 pounds.

USEFUL RECIPES.

CAKED UDDER.—The following treatment is said to be good: The best remedy we ever tried was to bathe it thoroughly and persistently with tepid water, and milking clean. Some use salt and water, others salt and vinegar, but we doubt whether they have any advantage over the pure water. The udder at such times is, of course, inflamed, and persistent application of water will reduce the inflammation, enabling you to draw the milk. It may require several bathings to entirely remove the cake, but we are confident, that three times out of four, it will prove successful.

A CHOLERA REMEDY is named by a correspondent of the American Rural Home, as follows: "This disease is very easily treated, as follows, for 50 fowls—Take two quarts of wheat bran, and stir into a pot of boiling water; add one teaspoonfull of saleratus, one ditto of black pepper; stir it all together, and place it where all the fowls can get some—the hotter the better.

TO REMOVE WARTS.—Take a hair from the horse's tail, tie it tightly around the base of the wart, and every two or three days repeat. It will soon be removed without scar or loss of hair. A neighbor had a mare with a wart over her eye; he applied some of the strong remedies usually used, which worked down into the eye, causing the loss of the eye, and part of the upper lid.—*Country Gentleman*.

KICKING COWS.—"Willis," in the Ohio Farmer says If you have kicking cows, don't fail to put a rope around the cow, just forward the udder, and draw it up tight. We know of the worst cases of kicking cured in this way.

INSECTS ON CATTLE.—One who has tested all kinds of modes for killing lice on cattle, says that sulphur sprinkled on the animals and well rubbed in the hair, and a tablespoonful of ginger in meal daily, for a week, is the simplest, surest and safest remedy he has ever tried.

TICKS ON SHEEP.—A Rural New Yorker correspondent gives a remedy for ticks, which he says is certain and powerful: It is simply tobacco steeped in water; dip your lambs into it about four days after shearing the old ones, as the ticks leave the shorn sheep and collect on the lambs for protection and warmth. Having experience in this matter, and the constant care of sheep from my youth up to my gray hairs, I feel justified in saying the above. Use about three pounds of the poorest kind that you can get for about forty head.

SULPHUR AND SALT will clear the lice off of calves it is said.

THE keeper of a livery stable says, that a cribbing horse may be cured of the practice, by applying a strong wash of cayenne pepper and hot water to all the wood work about his stable.

TO PREVENT horses from rubbing the hair off their mane and tail, take half a teacupful of sharp cider vinegar, pour on the spot where the rubbing is done, and card it while pouring on, and it will be found that this simple thing will stop rubbing down fences, or spoiling the looks of the tail in the stable.

HERNIA.—Pass a surcingle with a compressed bandage around the body, and apply enough pressure to return the enlargement to its natural position, when it will gradually disappear.

Maryland Agricultural Society.

This Society met on the 6th of May, at their rooms, Eutaw and Fayette Streets, A. B. Davis, Esq., President, in the chair, and T. B. Dorsey, Secretary. There was a good attendance, and as the subject for discussion was the important one, of the Application of Barn-yard Manure to Soils, there was much interest manifested, and those who entered into the discussion were Col. Wm. Webster of Baltimore County, A. B. Davis of Montgomery County, Mr. Warner of Harford County, J. J. Myerly of Howard County, and W. A. Bennett, Ezra Whitman and Samuel Sands of Baltimore County.

Mr. Sands said that in feeding cattle, the question of replacing in the land those constituents taken away, was to be considered. The manure intended to nurture the land, should contain just such constituents as the land needed. If phosphoretic elements were taken away they should be replaced. Animal manure is deficient in that much needed constituent, and hence as the best nutriment for land, the speaker recommended a mixture of phosphatic matter with manure. This would give the greatest yield in return. This was a subject that failed to receive the attention it deserved here in Maryland. In Ohio, the farmers at first built their stables over running streams, and got rid of their manure, forgetful that their lands would be eventually impoverished.

At the present time, notwithstanding the longer time cultivated, Maryland land was about as good as that in Ohio. Pennsylvania land is good because the farmers attend to this matter and keep their soil rich. Farmers must learn to regard cattle, in a measure, as manure manufacturers, and if only straw is fed to cattle, what can be expected? They must have meal and rich food. The liquor excretion of cattle was the most valuable of all animal evacuations, and should, by all means, be utilized. He thought bone dust the best phosphoretic matter to unite with barnyard manure.

Mr. Ezra Whitman, in answer to a question, said, that unfortunately on his own place, he was unable to get enough barnyard manure, as he had but little stock. He bought it from his neighbors, however, and used it in preference to any commercial fertilizer.

Col. Webster said he believed bone dust a cheap application for the purpose, but he did not think the application of phosphates at all necessary.—The barnyard manure, with the phosphoric acid found in salt and other such substances, was sufficient. It had been ascertained, that on the first farm ever cultivated in the State of Maryland, the yield per acre was now double what it was in the time of Lord Baltimore. In all parts of the world, where attention is giving to manuring, the crops at present are about double what they were five hundred years ago. It had been found that for forty cents worth of plaster, as much good could be wrought on land as with five dollars' worth of phosphates. The soils of Harford County lack lime, and therefore that is a good application.

Mr. Davis said, that when plaster was first used,

its effects were so good, that farmers thought they would be rich immediately. Plaster soon exhausts itself. Mr. J. B. Matthews, of Howard County, a most successful farmer, had found plaster over manure a beneficial arrangement.

Mr. Sands made further remarks, and closed by saying, he was satisfied, that if the nitrogen element was present in the soil, the other ingredients would be found in the air and elsewhere.

Mr. Davis presented the following resolution, which was unanimously adopted:

Resolved, That the true object of the farmer should be not only to draw from the land an annual revenue, but also to increase the value of the funded capital invested in the soil, the increase of the invested capital being necessarily an increase of the periodical revenue.

It was resolved to appoint a committee of ten active members to make preliminary arrangements for the September exhibition at Pimlico. Before adjournment, it was announced that at the next meeting, the subject would be the Feeding of Cattle, when Mr. Wm. Mosher, of Harford County, a great cattle feeder, and other gentlemen, will express their views.

Advantages of Small Farms.

A correspondent writes to the Department of Agriculture from Van Buren, Iowa, that he is running a small farm of forty acres, with twenty under cultivation in fruit, vegetables, and small grain.—“My income varies from \$1,500 to \$2,000 a year,” he appears proud to acknowledge. The more industry and intellect one puts into an acre of soil, the more money he is likely to take out of it.

If the foregoing be a fair statement of the case, and we have no reason to doubt it, we may well ask ourselves why more of our small farms are not made equally as profitable as the one described.—The answer will be found to be “lack of industry, energy, proper culture and more brain work.”—Let the farm have equal showing with their business.

Another writer from a different stand point says the cultivator of the earth needs time and opportunity for profitable study. How shall a man command such an advantage? Not, surely, by holding more land than he uses with any benefit to his family, or to mankind at large. The democratic doctrine of seeking “the greatest good of the greatest number” forbids all land monopoly. Seventy-five men are said to own one-half the soil of Scotland. Such a state of society cannot last many centuries in the future. Live and let live is a principle good for all time.

Although the product of this Iowa farm of 40 acres, is good, very good, for that region, yet we doubt not if we had the data, that it could be shown that an equal and even a greater product, is obtained from truck patches of two or three acres lying near our Eastern populous cities.

THE
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EZRA WHITMAN,
Proprietor.

Col. S. SANDS MILLS,
Conducting Editor.

Col. W. W. W. BOWIE,
Associate Editor.

OFFICE—145 WEST PRATT STREET,
Opposite Maltby House,
BALTIMORE.

T. C. DORSEY, Business Correspondent.

D. S. CURTISS, Washington, D. C.,
Correspondent and Agent.

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Dr. E. J. Henkle,	Augustus L. Taveau,
John Merryman,	John Feast,
A. M. Halsted,	D. Z. Evans, Jr.,
Ed. L. F. Hardcastle,	John F. Wolfinger,
D. Lawrence,	C. K. Thomas,

Tuberoses.

Mr. Navy, of Baltimore, a private gentleman, who is fond of flowers, brought to our notice some tuberoses bulbs which presented a singular freak of nature, that if it will continue to repeat itself, will be a great acquisition. It is this, each bulb has two perfect flowering stems and each stem was well flowered with double flowers. Some had 48 blooms on each stem. On the appearance of two stems he on half a dozen bulbs, cut off one stem close to the bulb, and it then formed a twin bulb. The others that were left with both stems, grew and produced as above stated. The stem left, where the other stem was cut off and formed a twin bulb of fine size, produced flowers.

OBITUARY.

We deeply regret to notice the death of Dr. T. O. Wharton, on the 8th ult., at New Orleans. Dr. Wharton was formerly, for many years, a valued citizen of Maryland. He was about 70 years of age, at least 50 of which he devoted to the welfare of his fellows citizens, being always in public life, but specially identifying himself with every movement calculated to advance the cause of agriculture. He took great interest in agricultural education, and was, for several years, administrator or general manager of the Maryland State Agricultural College, and so continued in that office during the war. Dr. Wharton's intelligence, genial and popular manners, won him a host of friends who will sincerely mourn his loss. We look on his death as a public calamity, and shall ever keep green his memory.

Early Planting.

Since we wrote about tobacco in our Farm Work for this month we find we are confirmed in our statement by the following taken from the Marlboro Gazette of 5th of May:

Our friend, Mr. John W. Burroughs, of Nottingham district, has introduced a novelty in tobacco culture, and last week set out 5,000 plants, and can, on the next season, plant 15,000 more.—Those set out have weathered one freeze and two frosts, and are doing well. He has large hot-beds covered with glass to protect the plants from the fly and early frosts, and the plan adopted may prove highly beneficial, as of late years the precariousness of the seasons have rendered tobacco a very uncertain crop. We understand that Mr. Jonathan T. Walker, of Queen Anne district, has large hot-beds now filled with tobacco plants in a flourishing state.

SPLENDID LETTUCE.—Col. Wm. Kimmell, Baltimore County, showed us a very extraordinary head of lettuce, weighing 18½ ounces. It speaks well for the Colonel's skill in growing vegetables. We believe he usually plants or did plant 100,000 tomato plants a year. Such great crops ought to pay.

SALES OF HORSES.—It is encouraging to breeders of fine horses to hear of such sales as the following:

J. R. Keene, of California, has sold to C. W. Kellogg, the San Francisco millionaire, the trotting stallion Sam Purdy for \$50,000. This is the highest figure ever paid for a trotting stallion.

At a sale of blooded horses in New York City, lately W. B. Whitman, (formerly Billy Barr,) with a record of 2.23½, was purchased by J. B. Murray, of Alexandria, Va., for \$1,500.

TRAVELING NOTES.

During a little trip to the ancient capital of our State, we passed through a portion of the fruit growing region of Anne Arundel County, and learned from all we talked with, that hopes were strong as to the safety of the peach crop. The same was expressed by a gentleman, a large peach grower from the Eastern Shore. Indeed, he predicted that this crop would be one of the largest and finest ever grown in Maryland. We noticed more than one peach orchard along our route, set in grass, and supposed the owners were of that class of horticulturists, who think fruit trees do better when in grass than when cultivated. The appearance of these trees did not indicate that the practice was a good one.

The Naval Academy grounds, the State House hill, the Government house, and Judge Tuck's elegant suburban mansion, with its beautiful grounds, were the most notable features of the old town.—On the grounds of the latter, we observed some very rare trees, and the finest, best-kept, and most perfect evergreen hedges we ever saw. It is here we met with Bermuda grass, in great luxuriance, and causing much trouble in cultivating crops, as it is hard to destroy, being very tenacious of life, and every piece of root that is cut, immediately sends forth a plant, if not removed from the ground. This grass is, we think, erroneously, but universally called, in this section, wire grass. The latter, Dr. Darlington says, is a different grass, though, in many respects, similar to the Bermuda. Both are European, not indigenous.

POTATOES.

An experienced and observant gentleman, who is fond of horticultural pursuits, and a close observer as to how plants grow, their habits, &c., remarked to us, that some years ago, he planted Irish potatoes, cutting the large ones, and planting the small ones whole; when about 4 to 6 inches high, they were considerably missing, and he found on examination that the *whole ones* were just sprouting, and they ultimately came up. A fact to show that *cut* potatoes will sprout and come up sooner than the others. He tried many, and found this to be the case with all. Such a fact is well worth remembering, or, at least, it should stimulate experiments of this sort. It is such experiences of sound judging, reflective observers, that are of much value to the agriculturist and our farmers; horticulturists and others should give them to agricultural journals, that their readers might profit by them.

We cannot close these short notes without expressing our surprise, that the beautiful Guberna-

torial Mansion should have its extensive lawn so little ornamented with flower beds or trees. What trees there are, seem to be all of one sort, and a few sickly evergreens, half eaten up by the trespassing cows and goats. It seems to us, that these grounds ought to be surrounded by specimens of the finest forest trees, such as the oaks, hickory, poplar, walnut, chesnut, ash, beech, gum, &c., indicative of the native growth of Maryland forests.

The Coming Peach.

Now that orchardists appear to be creating a mania for early varieties of the peach, would it not be well to inquire into the feasibility of encouraging the introduction of first class late varieties as well? We have the three new Rivers' varieties, all said to be earlier than the Hale's, and still later, the West informs us that they can do even better than that, so if we continue in this strain we must certainly have peaches all the year round.

Let us see what there is new in the closing of the season. Mr. Rivers of Sawbridgeworth, England, the indefatigable introducer of so many new kinds, has not confined his work alone to the early sorts, but has succeeded in producing a few that are remarkably fine for the closing crop.—Whether or not these have been tested here, we are not informed, but that such will prove valuable in our orchards, very little doubt should be entertained. Late varieties, as is well known, are quite profitable, as the price always rises as frost approaches, and the owner of a good late orchard is sure to realize a fair profit upon his investment if the crop is anything like full. Those good old reliable kinds, the Smock, Wards Late, and Heath Cling, and in some districts the Salway, should not be neglected in making up lists for a new orchard, and we believe every one is willing to acknowledge that the splendid Crawford's Late will pay well; but what we intended to invite attention to in this paper, was the fact that we must continue to experiment with this particular class of peaches, and not run wild after the early kinds exclusively.—Seeds of the later varieties will more frequently produce late peaches, than those of earlier proclivities, and consequently these should be used as the basis of our experiments. Now that hybridization is becoming better understood and appreciated, we hope to find our intelligent pomologists testing the theory in a practical way, and we fully believe that new and improved kinds may be produced, that will prove to be exceedingly useful in prolonging the fruit season.

Living on excitement is very expensive living.

Slope to the Rear in Cow Stable Floors.

Cow stable floors, having a slope or inclination to the rear, are both uncomfortable and dangerous. The obliquity in the floor occasions slipping; and the cow, in an advanced state of pregnancy, lies with the posterior considerably lower than the foreparts, the effect is to produce undue fatigue, and injurious posterior pressure on the bowels and womb, and we have often observed the effects, of which, where it had so fatigued the muscles of the neck of the womb, that the fetus would be prematurely partially presented at times, for weeks prior to the time of normal parturition.

This needless barbarity may be effectually avoided in the use of a stable floor level, "fore and aft," and of a proper length.

OPEN GUTTERS.

In the use of open gutters behind cows, to receive excrement, it is a universal practice, besides giving the floor a slope to the rear, that the animals may not drown in their urine, to place the gutter as close as practicable, that the excrement may fall into it. This so shortens the floor, that it causes the body of the animal to overhang the gutter, when they are lying, and they being thus deprived of support, the position is one of constant and severe fatigue. This, and a number of other stable barbarities, we might hope, would, at an early day, like other glaring cruelty, when exposed, succumb to the march of civilization, but we fear it has become too stable to be soon supplanted by any substitute however good.

The open gutter behind cows, stores the accumulating excrement in a most favorable position for the animals to smear themselves, the stable, the milk, milker, and even the manger. The solid excrement dams the liquid excrement in the gutter, and the tails of the cows become saturated with it, which they are admirably adapted to broad-casting.

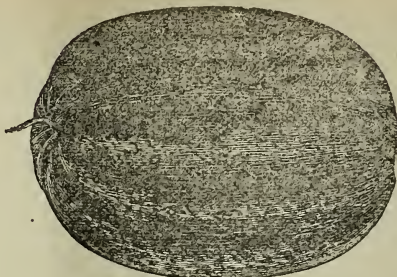
We know of few things which directly affect the cleanliness of human food, which needs reform more than common cow stables. Nothing is more certain than that good butter and cheese cannot be made from impure or tainted milk, or that it is unfit for human food, especially for young children.

In the use of the grating floor and the concealed gutter, it is impossible that the bodies or tails of the animals should come in contact with the excrement.

This new arrangement is safe, comfortable and cleanly, and should be universally adopted.

If consumers of dairy products knew how abominably filthy many dairymen are, they would look more to the quality, at least of the milk, daily consumed. The investigation of the existing condition of things, with regard to milk, is much needed.

The Peerless Watermelon.



It is gratifying to see new varieties of fruits and vegetables rapidly multiplying. The Peerless Watermelon is introduced to the public by D. M. Ferry & Co., of Detroit, Michigan, for the first time after having propagated and tested it for some years. They say of it: "this is unquestionably the best watermelon in cultivation, of medium size, thin rind, light mottled green; flesh, bright scarlet, solid to the centre, crisp, melting, and sweet as honey."

ARTESIAN WELLS.

Fabulous sums have been spent in abandoned and worthless artesian wells, and but a very limited proportion of all that have been sunk, have been worth their great cost.

A Company at Fort Wayne, Indiana, has sunk one of these dismal, uncertain, narrow ways into the bowels of the earth, to the depth of 2,500 feet, but no water has been reached. They purpose to bore 500 feet more, unless they get "stuck," and should no water be struck at that depth, it will no doubt be gratifying to have somebody take hold and "spell" them.

As we state in our *Water* article, in another page, wells are very uncertain sources of water supply, and more so of late than formerly. A contributor to a late issue of the Germantown Telegraph, says: "my wells usually have 20 feet of water in them at this time, now they have but fourteen inches." If we could reach this farmer, we would say to him, delay not, and construct a water collecting and preserving apparatus, after the plan described in the May number of the *Maryland Farmer*, and you never need be without water, so long as the average rain-fall continues to be even half what it has been for the past twenty years.

DEFERRED.—The very valuable article "*Pear Culture—Diseases—Insects*," by D. S. C., for want of room was deferred to the July number.

THE DAIRY.

THE DAIRY.

We believe that it may be truthfully said that no branch of agriculture is giving a better return than discreetly managed dairying, in this country.

The districts in which co-operative dairying is well established, are known to be proverbial for their thrift and prosperity. A large area in Vermont formerly devoted to sheep husbandry, has of late mainly discarded it, and embarked largely into dairying, and quite generally on the co-operative system; and we are authentically informed that the profits realized from the manufacture of both cheese and butter are not only satisfactory, but very encouraging.

The same is true of other portions of New England, New York, Ohio, Illinois, and other Western, Northwestern, and even in the Southwest, in which other production has been abandoned and the dairy substituted. Several counties of central New York, which were the pioneers in this country, inaugurating co-operative dairying, have found it so profitable they are rapidly extending and improving their facilities for conducting the business. Those engaged in it then, have done what is essential to success in any business; they have systematized it: they have enlisted the best talent in the country, and adequate capital, and withal they are working by the reliable and potent light of science, by which they find that certain manipulation, under the same circumstances, and in the use of the same established causes, invariably give the same results.

In other words they have there reduced the dairy industry to a science.

The associated dairy system was fairly inaugurated in Onieda county, N. Y., in 1860; although the originator of the system, Mr. Jesse Williams, started the first factory on a small scale in 1851, in that county. In 1866 the number of factories had increased, in the State of N. Y. alone, to over 500, supplied by an average of 400 cows each; total 200,000 cows; their worth about \$40.00 each, total value \$8,000,000. The area of land occupied by the associated dairying interest in New York, at that time was about one million of acres, worth say \$40 per acre; total value of land \$40,000,000.

Onieda county alone had at that time 80 cheese factories costing about \$160,000.

There is an effort now being made to collect full and reliable dairy statistics, by a committee of the International Exposition, of the whole coun-

try; and it is believed by those most competent to judge, that the value of the dairy products will exceed \$500,000,000 per annum.

Maryland has been very laggard in moving in dairy matters, whilst her facilities are good. There are but perhaps a half dozen factories in the State when she should have several hundred, and instead of exporting her hay, grain and straw, rapidly tending to the impoverishment of her soil, all should be consumed on it, by which its productive value might soon be doubled.

Whilst dairying in this country has been, and is still rapidly increasing and extending into new territory, the supply is promptly met by demand at remunerative prices.

The foreign demand for both cheese and butter is active, and continually increasing. Constant and very important improvement in the modes of manufacture, packing and marketing dairy products are being made, and the reputation of our products abroad, is equal, if not superior to that of any other nation.

We would urge our rural readers to wake up to the claims and the promise of dairying in our field of circulation. Let it enlist the attention of the Grangers, and we are confident that investigation and deliberation will result in early action, importance of giving more attention to dairying—and we feel that we cannot too strongly urge the adoption of the factory, and the co-operative system.

It is always prudent however, to move cautiously especially in embarking in any business in which we have no experience.

We shall give in our next issue, the plan of organization, the working and prospects of a factory in Harford county, in this State, which has now been in operation some months, and we shall suggest such improvements as are practicable for the use of the inexperience who may desire to start factories.

The fact is well established that no system of the whole catalogue of agricultural production can compare at all with dairying for maintaining and increasing the fertility of the soil.

DANGER TO STOCK FROM GYPSUM.—A Roanoke, Va., correspondent in Monthly Agricultural Report says:

There is great danger in turning stock on a grass-field on which plaster has been recently sown, or until the plaster has been taken up either by rain or heavy dews. Two years ago some stock was turned upon a field on the same day on which it was plastered, and they all died in a few hours.—There were no indications of "hoven," the stock being in good condition, and the sudden death was believed to be solely the effect of the sulphate of lime.

Temperature of the Cheese Curing Room.

As a temperature below seventy degrees is not necessary in curing cheese, ice and ice houses are requisite as an adjunct of the cheese factory. All that is necessary is to build the building in a manner to exclude the external temperature, and provide the air and temper it for the curing room, by the use of subterranean ducts, after the style used in Wilkinson's Gulf Stream Dairy, and the air may be effectually changed continually, and the requisite temperature secured with absolute certainty.—Prof. L. B. Arnold who is standard authority on all dairy matters, says "that too low a temperature in the curing room tends to make the cheese hard, dry, and flat, or insipid in taste; on the other hand, green cheese, when exposed to a temperature of eighty degrees or ninety degrees, will swell with gases, and will ripen too rapidly, developing bad flavor.

Beware of everything that can possibly affect the purity of the air in and around the manufactories for dairy products of all kinds. If cows drink from stagnant pools their milk will not make good butter or cheese.

LIVE STOCK IN HUNGARY.

According to the statistics of 1870, there were 15,070,000 of cattle in Hungary, and this was a diminution of 6 per cent. in thirteen years.

Cattle are diminishing in Hungary from two causes, viz: the breaking up of natural pastures, and the frequent occurrence of rinderpest, which has destroyed many. While cattle have diminished as above, about 6 per cent. horses have increased in the same period, 3 per cent.

One-half of the beef sold in Vienna, is supplied by Hungary. She exports annually over 50,000 head of cattle, and about 250,000 cwts. of meat and grease, (probably lard and tallow.)

Hungary has long been, and is still, remarkable for her fine teams of oxen.

An English traveler states that, he saw there 23 four ox teams, plowing in one field, and that the plowman drives his four team with voice and whip.

SHEEP KILLED BY DOGS IN THE UNITED STATES.—According to returns made to the Department of Agriculture it seems that the real losses of sheep by dogs amounts to more than two per cent. of the value of sheep throughout the country, or \$1,000,000 annually. In the States where sheep are protected by law the loss is reduced to less than one-half of one per cent.; but in those unprotected it ranges from 2.2 to 11 per cent. of loss.

The Poultry House.

Which Breed of Poultry Eats Most.

An Ohio poultry dealer recently took ten pullets of each of the breeds mentioned below, about six months old, gave them a yard forty feet square, with a comfortable house, and kept exact account of eggs and feed as follows:

The Dark Brahmats ate 369½ quarts of corn, oats and wheat screening, and laid 605 eggs, and weighed 70 pounds. The Buff Cochins ate 406 quarts, laid 591 eggs, and weighed 73 pounds.—The Gray Dorkings ate 309½ quarts, laid 524 eggs, and weighed 59½ pounds. The Houdans ate 214½ quarts, laid 763 eggs, and weighed 45½ pounds. The Leghorns ate 321 1-5 quarts, laid 805 eggs, and weighed 36½ pounds.

To make this experiment more complete, and to show which lot gave the most profit, including both eggs and flesh, we have supposed the fowls to be sold and dressed at the end of six months, at 20 cents per pound, also, that the eggs are worth 24 cents per dozen, (2 cents each,) and that the cost of the feed was 2½ cents per quart, or 50 cents per bushel. The figures would then be:

	Cost of Feed.	Value of Eggs.	Value of Meat.	Total Val.	Total Profit.
Brahmas,	\$ 9.22	\$12.10	\$14.00	\$26.10	\$26.28
Cochins,	10.15	11.85	14.16	23.42	16.29
Dorkings,	7.72	10.48	11.90	22.38	14.36
Houdans,	7.35	15.26	6.10	24.76	19.51
Leghorns,	5.77	16.14	7.30	23.44	17.07

The greatest profit on the investment is thus in favor of the Houdans, with the Leghorns next, and the Dorkings next.

Thoroughbred Poultry.

It is pitiful as well as amusing, in riding through the country, to see the entire neglect which the majority of farmers manifest towards their poultry.

If a farmer does not possess conveniences for rearing more than one variety, let him read, and satisfy himself which that variety should be, and then procure eggs or birds from some reliable quarter, and with little trouble, he can become possessor of a flock which will be a delight to the eye, and no more expense than a miserable mixture, except the first slight cost. Some insist that the only advantage a pure bred fowl has over the mongrel, is in the fancy. Well, for the sake of avoiding argument, we admit it to be so. Now, all will uphold a man in admiring works of art that are really perfect, and why not works of nature? While a sense of relief from all care can be found by the man of business in gazing upon "works of art and man's device," with which his house may be stored, more may be found in throwing off all restraint, and in the open air, losing himself and every care for the time, in watching the never-ceasing activity of these feathered pets,—*Correspondent Country Gentleman.*

HORTICULTURE.

CELERY.

Easy as this is generally to grow, it is by no means free from the troubles which seem, more or less, to be attendants on all crops. First, it is a little fastidious about soil; then it takes umbrage at too high a temperature; and then, worst of all, it is liable to be attacked by an insect known as the celery fly, which deposits its eggs on the leaves, in August and September, and these hatch at once, under the outer skin of the leaves, eating and destroying the whole inner substance of the leaves, and this prevents the plants from making any considerable growth.

In the matter of soil, it is useless to try to grow celery unless we have a soil very rich, cool and damp, and yet, what one might term a wet soil, is one of the worst possible for celery. It is astonishing how soon celery will show a yellow tint, by having water lie about the roots. Then, as to a rich soil, fresh manure is not acceptable. It makes a rank, pithy growth. There are, no doubt, varieties of celery, that are more solid than others, that is, pithiness may be a tendency in the variety, but it is certainly true, that many a seedsman is blamed for selling a poor quality of seed, when the whole fault is in the quality of the manure used.

The best celery growers manure the ground heavily for the crop which goes before, leaving the well-decayed remains to be used by the celery, adding, perhaps, some well-decayed manure to the soil just under the plants, so as to give them a good start in the world. Then, as the celery does not like heat, those manures are the best which have a tendency to cool the soil; and for this, when it can be had, there is nothing like well-rotted cow manure.

For the same reason, it is no use to set out celery till the hot nights are gone. With us, this is seldom the case till end of August or September. It is not, however, a matter of the month, or any set time—the time is, as we said, when the cool nights come—and of this right time, each must himself judge, in his own special locality.

The little fly referred to is a very troublesome fellow. His presence is not suspected until we see dead blotches on the leaves—and Julius is very apt to assure us it is a "sun scald"—but if we open carefully the little sick places, we shall find the little maggot-like worm at work. We have known gardeners, who knew it was an insect, recommend

dusting the plants with ashes, or various matters, but it is hard to understand how this can do any good when the insect is under the skin. A friend who is now and then troubled with it, says, he has found the only relief in going over the plants, now and then, and pinching the little fellows in their leafy beds. He says the insects are generally not as numerous as they seem, and when one has but a few hundred plants in garden culture, it does not prove to be a very great task, and the job is soon done, and done effectually. Besides this, it is well to make the celery grow as fast as possible, and the growth is then faster than any injury the little insect can do.

TRENCHING FOR GRAPES.

We are apt to form decided opinions upon methods of culture after having tested certain theories to our cost; and oftentimes we are fearful that after a very severe lesson, our judgment may become biased, so decided do these opinions become fixed. A case in point is that of trenching for grapes.—Many years ago, according to the almost universal custom, we prepared a border with extra care, according to three different rules, as then laid down in the books. The first portion was dug three "spits" deep, with the top soil placed in the bottom of the trench; the second portion was prepared similar to the above excepting that the top-soil was allowed to remain at the surface; and the soil in the remainder of the trench was carted away; whilst the excavation was filled with new compost its entire depth. Now for results. There was not any difference in the growth of vines throughout the length of the trench and the canes were not so healthy as those growing in a simply prepared border when deep culture and surface manuring had been the rule.

We tested this trenching system in various ways afterward, but gave it up in disgust as entirely unsuited to our soil and climate, at least, and whenever we hear writers endeavoring to impress this method upon their readers, we are proud to think with Dr. Franklin,—"It is paying too dear for the whistle." There may be certain heavy soils where very deep trenching would prove advantageous, but we have had no experience with such, and cannot speak by the book.

DRAINAGE is to the farm, what a foundation is to a house.

VEGETABLES FOR SUCCESSION.

Young and tender vegetables are so much superior to the old stringy esculents that grace, or rather disgrace, too many tables during the summer and autumn months, that it is a marvel why everyone does not strive to keep up a succession, where so little time and attention is requisite to accomplish his purpose. Sweet corn, for instance, should be planted every two weeks until the season becomes so far advanced that frost will in all probability destroy it before the crop would be ready to use. Radishes should be planted every week to secure a succulent juicy root for the table, until the heat of the summer leaves its impress upon the texture. Beets, tomatoes, string beans, and especially peas, should all receive attention in this respect. Lettuce too should have a constant succession—better by far to throw away the old plants that have become tough, and have a nice fresh bed of tender leaves to use in their place. In fact there are very few vegetables but what might be improved in this respect. We know it has been, and is, too much the fashion when a few mild spring days suggest that the garden requires attention, to show and plant everything, and then forget during the remainder of the season, that such an important department is in existence. How little many people know, what they lose by pursuing this course.

Notes on Cherries.

It is singular that all the most delicately flavored varieties of the cherry should be either shy bearers, or else be subject to the rot and other diseases that debar us from enjoying them to any extent. The Belle de Choisey, that paragon of excellence, rarely produces more than a few scattering fruits over the tree, but those few are deliciously fine, and as beautiful as they are good. The Champagne, one of Downing's seedlings, is only of medium size, but remarkably rich and lively. It will not however pay as a market fruit. The Delicate, one of Kirkland's seedlings is another of the dessert varieties, that is noted for its delicate flavor and rich juice: but it will not carry to market, nor does it withstand much moisture in the air. Coc's Transparent is of the highest quality, and is exceedingly beautiful, but like all the above too tender to be carried to market. If it succeeds in hanging on the tree perfectly ripe, it cannot well be surpassed for the table. We have other varieties however, that are excellent, notwithstanding they do not possess the peculiar delicacy of the above in point of flavor, as for instance the Gov. Wood, Black Tartarian (are sometimes subject to disease) Early Purple Guigne,

Elton, Knight's Early Black, Napoleon, Yellow Spanish, Rockport, and Ohio Beauty. Burr's seedling is perhaps the strongest grower of our cultivated cherries, and is a valuable first class fruit as well. Among best cherries, the old Mayduke still holds a prominent position; and the Reine Hortense, Early Richmond, English Morello, Carnation, and Late Duke, are all highly deserving of culture.

RHUBARB.

One of our most extensive nurserymen informs us that since the bursting of the "Wine-plant" bubble, the demand for rhubarb roots has been quite limited until the present spring, and now judging from the large number of orders for this esculent, there seems to be quite a revival in progress.

In looking over the pages of nursery catalogues some twenty years ago, the list of names under the heading of rhubarb was quite formidable, but people now-a-days appear to be quite satisfied that the "giants," "Colossals," "Earlies," &c., are of no account in comparison with that sterling variety, the Myatt's Linnæus. The latter seems to combine all the essentials of a perfect rhubarb, as it is large, early, tender, and has a mild pleasant flavor.—None of the others exceed it in any one particular. We observe in an exchange, that the practice of forcing this vegetable is denounced, on account of the weak tasteless quality of the stems after this operation has been performed. We cannot sustain such a charge, as the very act of a rapid growth, and consequently a succulent character tends to induce a milder flavor and tenderer texture. That this is practically correct, we have had abundant evidence, by frequently placing barrels over strong roots in the open ground, and heaping fresh stable manure around them very early in the season.

MULCHING.

Any kind of mulch for fruit trees, also for ornamental ones, where the mulch would not be unsightly, is very useful to the tree, during hot, dry weather.

It should be remembered, that the mulch will be more beneficial in a ring under the outer ends of the limbs, than near the trunk. The mulch should always extend 3 to 4 feet outside of the point plumb, to the outer end of the longest limbs, that this belt, in which the terminals, and feeders of the roots are most numerous, may be kept moist and in a congenial condition for them. It is like putting the feed behind the animal, to place the mulch around the trunk of the tree.

THE BEST EVERGREENS.

We should be badly off for evergreens were it not for the Norway spruce. It is undoubtedly the best thing we have. For small yards it grows too large in time; but many keep it down by pruning. To this end they cut off the leading shoot as well as the leaders of the side shoot. It usually makes another leading shoot, and often more than one when the superfluous ones are to be taken away. Those who have had experience with pruning evergreens, all agree that the young leading shoot must always be cut as well as, and at the same time, as the side shoots, or the lower parts of the tree soon gets thin. The next in value to the Norway spruce, is probably the hemlock spruce; this, also, is much improved by an occasional trimming when young, but in both cases, and indeed in all cases of evergreen trees, pruning should not be continued unless for the purpose stated, of keeping them confined to a small space. There are few things more unsightly to the eye of taste, than a perpetually trimmed evergreen tree.

Next to the hemlock spruce in value, we should place the Austrian pine. It is extremely hardy, and is just the thing to put where the wind is keen and cutting in winter. In such situations, the spruces always suffer, but the Austrian pine never a bit. It is apt to grow worse and open sometimes, but this may, in a measure, be improved by pinching back the young growths in June. These growths push out, as every one knows, like the points of gas burners. When they are two or three inches long, just nip out the point. The effect of this is, that instead of three or four buds at the apex of the shoot for next year, more are formed, and this, of course, adds to the twiggyiness. Only the strongest ones, including the leading shoot, is pinched back in this way.

Then we have the White Pine, which is scarcely inferior to the Austrian in value. It bears the shears very well when young, and after one trimming of this kind, if suffered to grow without any more art, will make a tree of great natural beauty. The leading shoot has, however, to be delicately handled, as it does not make a leader as readily as some others. Only the young tip of the growing shoot should be nipped out. Very rarely will the wood, when more than one year old, push out a bud to make a leader.

Of the smaller evergreens, the arbor vitæ are indispensable. The American is, on the whole, the best. It has a brownish tint under the frosts of winter, but comes out again green with the first warm days. It makes good single specimens for lawns and cemeteries, provided that some little care

is taken when young to cut out all the contesting shoots except one, so that there shall, in time, be but one great leader. When several are allowed to grow, in time, the tree becomes ragged, by the branches being bent apart by heavy rains or snows. There are many garden varieties of arbor vitæ which have peculiar dwarf or compact forms, and which render them very desirable for small gardens, or edgings in cemeteries. The Siberian is one of the strongest growing of these—grows very close, somewhat pyramidal, and is very hardy.—The Chinese arbor vitæ is not as popular in many places as the American, but it retains a beautiful green during the winter, and when care is taken to keep it to one leading shoot, and is trimmed once or so when young, it is a very desirable small tree. These are among the best of coniferous evergreens.

LARGE TREES.

Large as our mammoth California trees are, they are not without competitors in other parts of the world, and especially in Australia. The gum trees, of which the celebrated *Eucalyptus globulus* is one, often grown to a size not much inferior to the mammoth Sengioias, of our own land. But some of the fig family grow larger than these. Most persons have heard of the Ban Yan trees of India, and of their enormous size, and especially in regard to the great spread of the branches. This is of the Ficus or Fig family. A recent Australian paper says, that Mr. Walter Hill, the Government botanist, in Queensland, reports to the authorities there, that while cutting a given line on the banks of the river Johnstone, for the purpose of examining the land, an enormous Fig tree stood in the way, far exceeding in stoutness and grandeur the renowned forest giants of California and Victoria. Three feet from the ground it measured 150 feet in circumference; at 55 feet, where it sent forth giant branches, the stem was nearly 80 feet in circumference.

ABOUT SPIDERS.—Professor E. S. Morse says: Only the female spiders spin webs. They own all the real estate, and the males have to live a vagabond life under stones and in other obscure hiding places. If they come about the house so often as to bore the ruling sex, they are mercilessly killed and eaten. The spiders skin is unyielding as the shells of lobsters and crabs, and is shed from time to time in the same way, to accommodate the animal's growth. If you poke over the rubbish in a female spider's back yard, among her cast off corsets you will find the jackets of the males who have paid for their sociality with their lives—trophies of her barbarism as truly as scalps show the savage nature of the redman.

PEARS AND THEIR CULTIVATION.

Read before the January Meeting of the Maryland Horticultural Society, by JOHN FEAST, Corresponding Secretary.

Pears have been cultivated many years, and much has been said and written as to the best method of obtaining a crop. Looking back half a century, the varieties were limited, yet some in cultivation at that time are still at the head of the list for any purpose, such as Seckel, White Doyenne, Virgouleuse, with others. Since that period hundreds of varieties have been obtained from seed by different cultivators in Europe and in this country, and to ascertain the quality of the fruit, grafting was resorted to, or budding on the quince stock. Thus came dwarf trees. By this mode, the tree would bear fruit many years sooner than naturally as a standard; this operation was much practiced in Europe, and now in this country, to a great extent. Some varieties do well on the quince stock, while others do better as standards, and certainly less affected with what is termed Blight, though both are injured in this way.—While I am on this subject, let me ask, can any one tell us the cause of this continual malady of the pear? Much has been said, and much discussion had on the subject, but no one as yet has definitely pointed out a cure. Some will have it the soil and bad drainage, others electricity, and various other causes, which, so far as I can learn, has not yet been definitely settled.

The discussion now before us is one of much interest, and the fruit growers of this State are cordially invited to explain their mode of cultivation, which might lead to a preventive in the destruction of so valuable a fruit. Having myself seen in an orchard of trees, at a width of twenty or forty feet, where some of the trees were cut down on one side, and others more or less so, the entire length, with others in the same range, entirely unharmed. Such failure in the pear, was not so generally known before the working on the quince, though standards are affected, but not so much. We in this country have done much towards the cultivation of the pear, and many new varieties have been raised from seed, which are highly esteemed, and of much value, by the early cultivators. I would mention here some of those who have turned their attention in this direction: Manning, Walker, Winship, Wilder, Hovey, Ellwanger and Barry, and many others, whose names are familiar to many here.—These gentlemen have tried many experiments in the cultivation of the pear, and have large collections at the present time.

Since I have alluded to the cultivation in other States, it would not be doing justice to our cultivators in Maryland, if I was silent at this time. We have had in the neighborhood of Baltimore, years back, the finest collection of pears in this country, and experiments in planting, perhaps, excelling any thing of the kind ever known in this or any other country. Some years since, Mr. Ross Winans, of Baltimore, planted an extensive orchard of selected fruit; he had holes dug eight feet in diameter, three feet deep, and from each hole a drain laid at right angles, connecting each hole; then, with an augur one foot in diameter in the centre of the hole bored down twelve feet,

if possible, with no obstruction, at the bottom of this a flower pot was inverted and placed at the bottom, then filling the bore up with oyster shells, also the bottom of the bed, six inches deep, where the tree was to be planted. On the side of the hole bored, a terra cotta pipe was inserted. Then filled up with good, fresh, rich loam prepared for the same. This pipe was one foot above the ground after the tree was planted, and intended as an air pipe. After the tree was planted, a layer of oyster shells were laid on the soil, which was raised as a mound, and over this again, a covering of litter, or damaged hay, which was procured at that time. The soil was all removed, and the fresh soil was hauled about one mile. Believing this is the first instance of the like before, making a calculation, we find that the expense incurred for each tree, and planting, exceeded ten dollars.

Notwithstanding the trees made a vigorous growth for a few years, the fruit was not any better than with the common cultivation; were equally damaged as others without the extra pains bestowed in planting. Since that time, he has planted another orchard, meeting with better success—confining himself to those varieties most profitable. This mode of planting, though quite novel, may lead to some experiment in the culture of the pear, which induces me to mention it.

The cultivation of the pear in other States is extensive, and in it a large amount of capital invested, and much realized therefrom, but Maryland may claim her share as one of the pioneers in introducing many varieties. A gentleman and a lover of pomology, one that has left behind him, that fame which the citizens of Baltimore, and the people of Maryland, should be proud, for few like him, have protected nature's wilds, which since has been destroyed by the woodman's axe, and now the public thoroughfare of those less extinguished than himself, being a gentleman, linguist and scholar, and one whose name is familiar amongst the earlier growers of fruit in this country, such as the strawberry, grape, peach and pear, having at his demise forty thousand pear trees planted, and thousands in a bearing condition. Being an enthusiast, he obtained every new variety, at any price, if recommended favorably, so that he exhibited at the Agricultural Fair, over two hundred varieties in 1848. I, myself, had special charge of them at the time when he was one of the largest cultivators in his day, and took every precaution to have every variety correct to name. If he found any worthless, he ceased to cultivate them any longer, and I hope, for the interest of Maryland, there are many now following this example, but doubt more zealous in the cause than he was. Much has been said of individuals who have left large sums to different institutions, and little benefit derived therefrom, but he left something that benefits all mankind, which is more universally distributed, and, particularly, the fruit grower gets a full share; he was an efficient member of the Maryland Horticultural Society, organized in 1832. Five of us are now left, yet I would encourage the members of this Society, organized a third time, especially the fruit growers, to follow his footsteps in raising new varieties from seed.

May I repeat, he left more than all the other bequests put together, in the mode of *canning* fruit. Look at the capital invested at this time,

and year after year increasing, as every season more fruits are offered for sale, demanding a fair price. Maryland may feel proud that one of her citizens laid the foundation in the first canning of fruit—Mr. Lloyd N. Rogers, at that time the owner of Druid Hill, now the Park. I knew him well. He was above mediocrity, and possessed of that knowledge which few can boast. Since he has left us, many new varieties have been introduced, which excell many of the older kinds. As we have some enterprising members of this Society, who are raising fruit on a large scale, I wish to encourage them, and hope at some future time, they will exhibit to this Society largely, the products of their labor, and show that Maryland is a fruit growing State—is equal, if not superior, to any State in the Union.

BANKING UP PEAR TREES.

Visiting Capt. H. D. Smith's fine little farm, at Arlington, Va., the other day, I saw a couple of pear trees which appear to furnish a useful lesson. In digging down a farm road last spring, in clay and gravel, he banked up two of his young pear trees, 18 or 20 inches high, around the trunks, and graded back to a gentle slope; they are now much more vigorous and luxuriant than other trees in the same row, having made a perceptibly larger and more healthy growth, for the banking up of earth around them.

In the same neighborhood, Mr. Wybert treated some pear trees in a similar manner, banking them up nearly two feet high, all around the trunks, with fresh earth out of a well; and they, too, show a superior growth above other similar trees growing near them in the garden. This seems to indicate that banking up around the trees is a good plan.

Capt. Smith's Moorpark Apricot trees hang full of rich, snowy blooms, promising a rich yield of fruit, if he keeps the *curculio* shaken off in season. His early peach trees are already purple with bursting flower buds, just ready to spread into abundant bloom, giving the promise of a large crop of fruit. All sorts of fruit trees show prospects of abundant yield hereabouts. D. S. C.

CULTIVATION OF ROSES—Roses, like other things in the vegetable kingdom, are also beautified and enlarged by a judicious and generous course of treatment. It cannot be too often urged in connection with their culture, that to succeed is to be successful. He who raises one perfect specimen of a plant is a better cultivator than he who raises an acre of indifferent specimens, and whoever has made himself a thorough master of the art of cultivation of a single specimen or variety has acquired a knowledge and skill which enables him to succeed with the many.—*Charles H. Miller.*

Age and Profit of Peach Trees.

By report to Illinois Horticultural Society, it is stated, that Mr. Chatters, of Adams county in that State, near Quincy, made his first large planting—thirty-five acres of Apple trees, and five acres of Peach trees. The Peach trees are yet living, 1873, and doing well. Of this planting there has been only three entire crop failures, three partial crops, and five full crops. The partial crops paid the best, as they were then scarce, and commanded very high prices, while in full crop years the prices ruled lower.

His next general planting was in 1860, when he put out thirty-five acres of Apples, and four acres of Peaches, and in 1866 he planted fifty acres of Apples and Peaches together—about three Peach trees to one Apple tree—planting over 5000 Peach trees, and near 1500 Apple trees in one year, on his two farms. The year following, 1867, he planted about fifty acres more in orchard, Peach and Apple trees, in the same proportion. He has now in bearing about 16,000 Peach trees, 1,200 dwarf Pear, 1,800 Cherry trees, 3,500 Apple trees, and 1,500 Apple trees that will soon come into bearing, having been planted five years, and 300 other fruit trees, making a total of near 25,000 trees in orchard.

Mr. Chatten states that the average life of Peach trees in his orchard has been twelve to fifteen years. He says it costs to plant, cultivate, prune, rent of land, &c., about \$3 per tree, to grow and train Peach trees into full bearing. Plants about thirty-three Apple and one hundred Peach trees to the acre. Costs to take care of a Peach orchard, when in full bearing, for pruning, cultivation, rent of land, &c., about \$15 per acre each year. They bring, on an average crop, from \$4 to \$5 per tree, or from \$400 to \$500 per acre.

He further says, that where the soil and situation suits, the Peach pays a much larger profit than any other fruit grown in this county. I have been convinced of this fact for many years. There is no tree, when the proper kinds are selected, and they are properly planted and managed, that pays as large a per cent. on the investment, and gives as quick returns as the Peach.

SOIL FOR FRUITS.—The Gardeners' Monthly gives briefly the following rules for selecting the best soils for the different fruits: "A light, dryish soil for the peach; a strong loamy soil for the pear; nearly the same for the plum; a heavy loam for the apple—if on limestone, all the better; and for the cherry, a soil similar to that of the peach,

POTOMAC FRUIT GROWERS.

MAY MEETING—1875.

The meeting of this Society, at Washington, on Tuesday, the 4th of May, was a very pleasant and instructive one, and was well attended, more than a usual number of ladies being present. In the absence of the president, Vice President King took the chair, and Dr. J. E. Snodgrass, secretary.

THE TABLES.

In addition to sound, wellkept apples—the Jonathan and the spice apple exhibited by Stacy Snowdon, the table was handsomely ornamented with splendid flowers, the tribute of Mrs. Harriet Nute's taste and skill, including fine roses and splendid geraniums, in pots—very thrifty.

APRICOTS.

The order of the day was the consideration of apricots and the subject was opened by a brief but instructive paper by Dr. E. P. Howland, in which he stated his experience with a large apricot orchard near Mt. Vernon, consisting of about 1,500 apricot trees, embracing the Breda, Early Golden, and Moorpark varieties. He said the apricot was a distinct species of fruit, but more nearly allied to the plum than any other. It may be propagated by budding on the plum, peach or apricot roots.

The best soil for it is a clay loam; but it will grow well on any soil good for a fair crop of corn; it should have clean culture, till the trees come into bearing; it is of longest life when budded on its stock—the apricot.

It is subject to no disease known in this region; its average fruiting seasons is once in three years—loss usually owing to being often killed by late spring frosts, as its blossoms come early.

Dr. Howland said his young apricot orchard of 1500 trees were 3 to 4 years old, and first coming into bearing, and in 2 to 3 years more will be in full bearing. After a few merry and sarcastic remarks about the modes of keeping off the freezing, he said his trees, this season, were in bloom the 9th to 11th of April, and were nearly all killed by the hard frost a few days later.

After the frost, the next difficulty is the *Curculio*, which we are compelled to fight till the apricots are ripe, which is in July. The surest way to fight them is to jar the trees every morning, catch and kill the enemy. He thinks success in raising this fine fruit depends upon patient labor, and unremitting attention—not much expense but constant labor; and a crop of good fruit may be thus secured two out of three years. He calculates that in a few years his apricot orchard will bring him in an income of \$10,000 in a season. It is a delicious fruit and coming in early—July—will always bring a good price.

This interesting paper was received and ordered to be printed.

FLORICULTURE.

Ordered, this be considered a part of the business of the society, and a committee be appointed to inquire into the subject, and the Chair appointed Mr. Needham, Mrs. Nute and the secretary.

Consideration of the apricot was resumed; President Gillingham having arrived took the chair.—He said apricots do best on northern slopes, protected from the winds, where the hot sun may not strike them too fiercely.

Mr. King had succeeded in saving fruit from the curculio by having plenty of chickens in the garden among the trees.

Col. Pitts confirmed the statement that chickens will destroy that pest and save the fruit.

Col. Curtiss stated in Illinois they find the curculio works and travels in the daytime and hides in the night. He secretes himself in the cracks of the bark and in the wounds of the tree and limbs, and hides under chips and lumps on the ground.

Dr. Snodgrass stated that the apricot was a native of Asia; that there it was planted in the warm valleys, in sequestered nooks, and not on the cold hills and mountains, and we should study its native care and habits.

Dr. Howland wanted more to know how to cultivate it and succeed here, than how it was done in Armenia. We are cultivating in this country and not that, and wished to succeed here.

Mrs. Keeling suggested trapping the wasps and yellow jackets with bottles of molasses hung in the trees, which was thought by some to be a good idea.

The president and Dr. Howland thought elevated positions in this country the safest against injury by frost to fruit. Sprinkling trees at night before a frost was said to be a safe operation, and putting pails of water in a cellar often prevented vegetables and fruit from injury by frost.

Mrs. Nute often saved her plants by pails of water in the room at night.

Mr. Snowdon found that his apricots, in a northern exposure, but protected from wind, escaped the late frosts; while others did not escape. So with some of his tender peaches.

Captain H. D. Smith, of Arlington, said part of his apricots, the earlier ones, were destroyed, and others escaped, and if he succeeds in fighting the curculio he will yet have a fair crop. He has peach trees on different slopes, and they were affected about the same by frost; not more than one-fourth will be destroyed.

Rev. Mr. Freeman suggested that mulch of straw or manure be placed around the roots of the trees, after they are frozen, to keep back blooming till after the frosts, and asked if it could be done.

Captain Smith, Dr. Howland and the secretary said this was the New York practice, and worked well there; but here the ground does not freeze hard enough.

Colonel Curtiss had known that operation, to save tender fruits, in Michigan and New York, to succeed well.

Captain Smith said that two tender sorts of his peaches—the Nonpareil and Morris White—had suffered worst from frost, but more than 20 per cent. of the others were killed. Hale's Early and Stump the World stood best. Yet he said a frost which would kill any would injure all more or less. They would not be so good as if there had been no frost.

Dr. Howland thought, after close inspection, about one-half his fruit was injured.

Colonel Pitts said the earlier blooms of his apricots had been destroyed—not the later ones, nor his peaches.

Mrs. Nute, on invitation, gave a description of her mode, and of the handsome fern, much like the Hartford fern, which was found growing wild in Prince George's county, Md. It is very beautiful, and her rooms are tastefully festooned by it.

Col. Curtiss mentioned seeing the same kind of fern in the Appomattox valley, Va., during the war, and regarded it finer than the Hartford fern.

The president gave a brief history of the Seckel pear. It is a seedling from a French pear, known as the *Rouslette de Rheims*, and was grown on the farm of Mr. Seckel, near the city of Philadelphia, and the original tree was standing and bearing fruit only a few years ago.

"WORDS OF CHEER."

The secretary read a pleasant little article from the *Maryland Farmer*, of a congratulatory character, after which Col. Curtiss read a pretty poem from the same paper, written by the secretary, which was received with favor.

After transacting some society business, the Chair designated the "Pear" as the subject for consideration at the next meeting—first Tuesday in June—when as many of the public as desire will be welcomed to participate in the discussion, as they are designed for the public benefit as well as of the members.

HORTICULTURAL SOCIETY EXHIBITION.

The Horticultural Society held its usual monthly exhibition at the Academy of Music on the 18th of May. Although there were fewer plants and flowers than at the preceding exhibitions, yet they were rare and superior in variety and selection, and most admirably arranged. At 8 o'clock, President Whitman called the Society to order, and invited Mr. Flitton to read an elaborate botanical paper on the history and present condition of ornamental gardening in Europe. After which the following list of premiums were awarded to the professional florists:

First premium, (\$3) for fuchsias, James Pentland; first premium for verbenas, to the same; second prize for verbenas, R. J. Halliday; first premium for cut roses; J. Edward Feast; first premium for cut pansies, Thomas Fairley; first premium for pelargoniums, Andrew Patterson; second premium for pelargoniums, R. J. Halliday; first premium for zonale geraniums, Thomas Fairley; second premium for zonale geraniums, James Pentland; first premium for double geraniums, John Feast; first premium for variegated geraniums, Thomas Fairley; second premium for variegated geraniums, John Feast; first premium for collection of greenhouse plants, to the same; first premium for ornamental foliage plants, to the same; second premium for ornamental foliage plants, R. J. Halliday; first premium for hardy flowering shrubs, W. D. Brackenridge; premium for hanging baskets, R. J. Halliday; first premium for table design, J. Edward Feast; premium for hand basket, to the same.

The following were then awarded to amateur exhibitors: First premium for fuchsias, Ezra Whitman; first premium for petunias, to the same; first premium for cut pansies, to the same; first premium for zonale geraniums, to the same; second premium for zonale geraniums, J. Howard McHenry; first premium for variegated geraniums, to the same; second premium for variegated geraniums, E. Whitman; first premium for budding plants, J. Howard McHenry; first premium for hardy shrubs, to the same; first premium for hand bouquet, E. Whitman; first premium for vase, to the same.


It was announced that Captain Snow of Harford County, who was expected to deliver an address upon the subject of "Orchids," illustrating with over eight hundred specimens, was prevented by another engagement from being present. A committee was, upon motion, appointed to arrange for the delivery of the address at an early day. The meeting then adjourned.

We had intended to make further remarks about this highly successful meeting, but have been anticipated by an observant correspondent and thankfully substitutes what he has curtly written, as short notes of the prominent objects that were on exhibition.

Messrs. Editors *Maryland Farmer*:

I was delighted at the display of rare flowers, the number of "fair ladies and gallant men," at the Academy of Music on 18th inst. Those which seemed to attract most attention, were as follows: The *reunia humilis*, from J. Feast—a lovely yet humble little plant. The table of Mr. Halliday was a fine display—rhododendrons were superb. There was a very fine *hydraugea rosea* alba. The family of lady slippers was effective, one shown by Mr. J. Feast was a curious and rare wild flower of Maryland. He also showed a newly imported geranium, called *Happy Thoughts*, variegated white and green. Mr. Patterson's display of fuchsias, commanded high encomiums. Mr. Brackenridge had a fine collection of succulents. Mr. Fairley's pansies were beautiful. The cut flowers and table ornaments from J. E. Feast, were greatly admired.

The king-plant in the room, was the splendid lemon tree from Mr. E. Whitman. It attracted universal attention and praise. The President of the Society also made a handsome display of different plants and flowers, and was a very successful competitor for premiums. The Society is an established success, and I learn is daily growing in popularity with the public.

 Time is money, and many people pay their debts with it.

LADIES DEPARTMENT.

A Chat with the Ladies for JUNE.

BY PATUXENT PLANTER.

"JUNE, with the mower's scarlet face,
Moves o'er the clover fields apace,
And fast his crescent scythe sweeps on
O'er spots from whence the lark has flown

The glorious rose-month, *June*, has come with its floral wealth, to laden the country air with sweet perfumes, and gladden the eye and heart of each lover of nature, with rich floral treasures and beauty;

"Pinks and roses bloom,
And every bramble sheds perfume "

Thanks to the wide-spread refinement of taste in town and country, beautiful flowers are now blooming everywhere. The flower-king of the North, Vick, paints this picture in poetic prose:—"Our gardens are now gay with bright flowers, and fragrant with delicious odors. Every morning brings new revelations of beauty—each evening fresh miracles of loveliness. In spirit, we unite with the birds in their most grateful songs, and our hearts are in unison with all their joyous lays. The humming bird sips the nectar from every flower; and bird and bud and leaf and blossom, impart sweetness to our throbbing hearts. We are enjoying nature's great annual jubilee—beauty's carnival." It is sincerely hoped, that all my lady readers have around them these sources of sweet content and joy, and the health to realize the pleasure which they yield to every reflecting mind and warm gentle heart.



We here give a cut of a species of that interesting class of plants, the *solanum*, or ornamental egg plant. Of late years it has been greatly improved, and may be kept over from year to year if desired and are beautiful ornamentations about Christmas time, crowded with their small fruits, from the size of cherries to a larger size. There is the white, scarlet, yellow and orange scarlet colored sorts. The latter called *Hybridum compactum* is the best. We owe

Messrs. Briggs & Brothers our thanks for this illustration.

No garden should be without a supply of the old time shrubbery, lilacs, snow-ball, syringa or mock-orange, calycanthus or sweet-scented shrub, with a plenty of the old hundred leaved rose, the Burgundy and the Historia rose of England—York and Lancaster—the white and red roses of the rival houses blended into one, growing along the borders of the lawn and by the fences. They are very ornamental, and require no attention; after they have finished blooming, have them mown close, and next year they will spread and make a splendid show of bloom—like a carpet of tapestry spread in spots on the velvet turf. Have an abundance of all kinds of



roses—upright, climbing, trailing, tree, rampant and dwarf roses. Let the lilies be conspicuous on the borders, with the dahlia, zinnia and gladiolus and tuberose. Have phlox drummondii, verbenas, portulacae, double and single, alyssum, mignonette, and such like low and trailing flowers; among the table sorts, the beautiful balsams, dianthus, in variety; useful, gay nasturtium; double petunias; salvias of all colors, &c. You ought to have one bed for oriental plants, like canna, ricinus, castor bean, solanum, ornamental egg plant, may be kept over for years, and make brilliant winter-house plants, in this bed plant also ornamental grasses; they are pretty and fine for winter bouquets with everlasting flowers.

I have mentioned these because they are among my own favorites, but there are so many new flowers and rare and beautiful shrubs, that the grower of flowers cannot well go amiss. The Virginia clematis, or Virgin's Bower, a wild climber with white flowers, has, in the hands of skill and science, been in England so manipulated, that dozens of varieties have been propagated, of all forms and colors, some climbers and some erect as any spirea or rose stem.

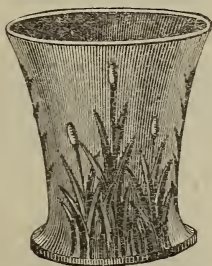
Young ladies, how about your summer amusements and recreations? Have you a nice swing, croquet ground, and a spirited, yet easily managed, horse to ride? If you have not, coax or tease pa, or brother, or, if it must be, husband, into furnishing you these indispensable accessories to healthful exercise and graceful pleasures, only fully attainable in the country. Surely they or one of them will procure you these enjoyments rather than force you to

counterfeit nature's cheek—painting. For you know, "girls must have a roseate color."

I give you, ladies, a WHITE-WASH. The recipe is taken from an exchange, said to be almost equal to white lead, and will not rub off. Into one gallon of sweet milk, stir powdered lime till a little thicker than cream, add a teacup of turpentine, stir well, and apply with a paint brush. Try it.

I give some other domestic recipes, as follows:

COCOANUTS AND ORANGES.—Peel and slice several sweet oranges, saving the juice. Place a layer of slices in a glass dish, sprinkle it with sugar, and strew over it some grated cocoanut. Then add another layer of orange, sugared, and another of cocoanut, so alternating until the dish is full. Pour over this the juice of the oranges and the milk of the cocoanut, and let the whole stand two or three hours or more. Serve as sauce for supper or desert for dinner.



As this is the season when roses most do bloom, and are in greatest plenty, I commend the following to such as would like a first class yet cheap perfume. Select the leaves of the common rose—(*centifolia*), and without pressing, put them in a tight bottle, and pour in spirits of wine; cork the bottle, and let it stand till the contents are required for use. This is a fine article, and possesses a fragrance nearly equal to the otto of roses.

Now is the time when the bad practice of borrowing and lending between housewives begins. Avoid it if possible. Many inconveniences occur from it, and no thanks in return. Many, no doubt, have realized the truth of this funny anecdote: "Mother wants to know if you won't please to lend her your preserving kettle—'cause as how she wants to preserve?" "We would with pleasure, boy, but the fact is, the last time we lent it to your mother she preserved it so effectually that we have never seen it since." "Well, you needn't be so sassy about your old kettle, mother wouldn't have troubled you agin, only we seed you have a new one."

That grand old bard, Shakespeare, says:

"Neither a borrower or lender be,
For loan oft loses both itself and friend,
And borrowing dulls the edge of husbandry."



This is a busy month in the well managed household. The dairy must receive the closest attention.

Plenty of clean sand, soap and hot water, also cold water and plentiful use of ice are essentials to a nice dairy for milk and butter. A cool dairy with running water if possible, and as the butter is packed in jars, bury the jar at least half its height in ice; when well packed, put on an inch of salt, and moistened so as to fit close around the edges of the jar to exclude all air, and tie with a cloth, the cover, and next June it will eat as nice as it would when put in the jars.—Each jar or keg should be filled as quickly as possible. Cleanliness in the extreme, with exposure of the dairy vessels and utensils to sunshine, is the grand desideratum of a dairy.

Poultry will require attention this month. Keep the houses clean, and let the fowls have clean water and plenty of food, as well as a run every day or so to get worms, green food, gravel, &c. Feed young poultry often as much as they will eat clean, and vary the food. See that they have green food abundantly.

I give an excellent hint about onions for fowls, from the Genesee Farmer, of many years ago:

"Scarcely too much can be said in praise of onions for fowls. They seem to be a preventive and remedy for various diseases to which domestic fowls are liable. Having frequently tested their excellencies, we can speak understandingly. For gapes and inflammation of the throat, eyes and head, onions are almost a specific. We would, therefore, recommend giving fowls, and especially young chicks, as many as they will eat, as often as twice or three times a week. They should be finely chopped. A small addition of corn meal is an improvement."

The rearing of poultry is not only very profitable, but interesting and pleasurable. Some breeds are ornaments to the grounds about a house. The peacock, white turkey, Guinea fowl, games and the bantams, are objects of interest and attraction on the lawn, while the rarer sorts of pigeons, when gentle, are always greatly admired and sources of delight to visitors, as well as to the children of the household and their juvenile associates.



Above we give illustrations of the latest style of hanging baskets, jars and pots, made of wood, porcelain, terra-cotta and other materials, for out as well as in-door ornamentation and use in holding flowers. Messrs. Whitman & Sons are the agents for the manufacturers of these and other ornaments for lawns.

Evanesence.

What's the brightness of a brow?
What's a mouth of pearls and corals?
Beauty vanishes like a vapor,
Preach the men of musty morals.

Should the crowd, then, ages since,
Have shut their ears to singing Homer,
Because the music fled as soon
As fleets the violet's aroma?

Ah, for me, I thrill to see
The bloom a velvet cheek discloses:
Made of dust—I well believe it!
So are lilies! so are roses!

Acknowledgements.

We return our thanks to Mr. R. B. Coleman, of the Carrollton Hotel, Baltimore, for seeds of the Eucalyptus Globulus of California, "where this tree is of wonderful growth, making wood for fuel and timber in four years!" Should they flourish in our climate and location they will be valuable for shade, timber and ornament for the new suburban residences and city streets and spaces that want shade trees in the shortest time. These seeds will be tested at Ivy Hill, the residence of Mr. Whitman.

Mr. Whitman, publisher of the *Maryland Farmer*, with much pleasure acknowledges the compliment paid to him as President of the Maryland Horticultural Society, by the venerable and learned authoress, Mrs. Lincoln Phelps, in presenting him with a copy of the last edition of her *Familiar Lectures on Botany*, just published by F. B. Lippincott & Co., Philadelphia.

This work, so valuable for the use of colleges, schools and private students, deserves more than a passing complimentary notice.

As far back as 1829, Mrs. Phelps, then Mrs. Lincoln, at the head of a large female academy, published these Lectures in a small volume, as an easy elementary school book for beginners in learning botany. From that time it became a standard school book, and as the science continued to develop itself, and expand in importance by new discoveries, the authoress continued to enlarge and revise her work to keep pace with the progress of the science, until, now, at the advanced age of 84 years, she issues the crowning great and beautiful work of so many years well spent in the loving labor of female education.

The authoress has attained the enviable fame of being among the foremost on the honored roll of eminently distinguished women of America. Her well preserved faculties at so advanced an age, her elegant manners and extensive requirements, only equaled by those kind and genial feeling shown in social life, have commanded the high admiration and affectionate esteem of all who belong to the wide circle of her acquaintance. It is enough to say of the popularity of her work, that there has been over three hundred and seventy-five thousand copies of "Familiar Lectures on Botany" sold since its first edition was issued!

It should be read and studied by every one in town or country, who cultivates a plant or flower. The present edition comes most opportunely, when the public sentiment, especially in this city, is just now all aglow with the desire to foster horticulture, and promote the progress of horticulture generally.

Publications Received.

"COMPLETE GUIDE FOR OBTAINING PATENTS."—By Louis Bagger & Co., Washington, D. C., with full instructions to inventors—useful.

VICK'S FLORAL GUIDE, No. 3, for 1875. This number exceeds in interest any of its predecessors, as it contains Mr. Vick's "Trip to the Pacific," written in a pleasant style, and is a graphic and poetic picture of that wonderful and semi-tropical region of our wonderful country. On the subject of flowers, Mr. Vick is truly "the old man eloquent."

From Mr. Richard Walze, No. 46 N. Charles Street, Baltimore, a neatly illustrated pamphlet, descriptive of his beautiful grounds, at Cedar Heights, near the Relay Station of the Baltimore & Ohio Railroad, which he designs to divide into lots for suburban residences.

PLYMOUTH HEIGHTS, the property of the Woodberry Land Company, is the title of a pamphlet, descriptive of lots adjoining Druid Hill Park, Baltimore.

THE PEOPLE'S COMMON SENSE MEDICAL ADVISER. By R. V. Pierce, M. D., Buffalo.—This is the title of a very valuable new book, sent to us by the author. It is one of those sorts of books which ought to be owned by every house-keeper, especially where skilled medical aid is not to be had promptly. Many valuable lives have been saved by having on hand such a vade mecum, and oh! how many such lives have been lost by waiting for the doctor to arrive, the persons present not knowing what was to be done, or perhaps doing the wrong things. This seems

to meet exactly the public want. The author is of high standing in his profession. The sections treating of human temperaments, Pseudo-Hygiene, nursing the sick, and those practical hygienic topics that include sleep, food, ventilation, &c., and the valuable directions given in cases of accidents, poison, sudden attacks of diseases that acquire prompt attention, &c., are among the many important matters which are ably and plainly discussed. We warmly commend it to all, but particularly to our country friends, who are remote from a doctor, because having this book, they have always a doctor in the house to prescribe until the family physician can be called.

RIGHTS OF A CITIZEN OF THE UNITED STATES.—*Parsons*.—Published by Jones Brothers & Co., Philadelphia.—This is a large volume, and embraces almost every subject relating to the rights of every citizen, and contains a great amount of valuable matter, forms for business transactions, &c. In giving it a careful perusal, while we discovered a few trifling inaccuracies, we found a great amount of information of importance to the business man, the farmer, mechanic, lawyer and general reader, who wish to know all his rights, and how to maintain and protect them. It is a work of uncommon value and usefulness.

From the "PHOENIX IRON COMPANY," 410 Walnut Street, Philadelphia, a very neatly printed, and leather bound pocket book, entitled: "Useful information for Architects, Engineers and Workers in Wrought Iron, &c." The form of the work is a most convenient one, and the matter is what the title purports.

HORSE ITEMS.

We clip from the standard turf journal of America, the *Turf, Field and Farm*, the following interesting horse news:

SALE OF CLYDESDALES IN INDIANA.—The following Clydesdale stallions were sold under the hammer lately, at the Gompers' Farm: Blrkey, to J. L. Kunkle, Irwin's Station, for \$2,700; Bergamy, to J. Dundon, Illinois, for \$2,600; Sir William Wallace, to same, for \$2,650; Sir Wyndham, to Wm. A. Hemmers & Co., Illinois, for \$1,500; Lord Hope, to the owner, for \$3,000.

SALE OF AN EDWARD EVERETT FILLY.—Maj. A. Lilburn, of Haverstraw, N. Y., has sold his four-year old filly, by Maj. Winfield, (now Edward Everett,) to David Bonner, Esq., of New York, for \$5,000.

D. SWIGERT'S STABLE.—Mr. D. Swigert, of the Stockwood Farm, Spring Station, Ky., writes: "My horses in training, nine in number, are doing well, and are forward in their work. They are looking well; thermometer at 80°; grass forward."

A HEAVY TWO-YEAR OLD.—Mr. H. B. Sherman, of the Plankinton House, Milwaukee, Wis., has sold a two-year old colt, weighing 1,300 lbs., for \$1,000. No mention is made of his breeding—Clydesdale perhaps.

A WILD HORSE.—A wild horse from Thibet, which is considered a pure specimen, was recently sold at Dargeeling for 500 rupees. It is a dark chestnut with a black line running down the back; the belly and legs are gray and chestnut, and the animal is said to be very vicious.

CEREBRO-SPINAL MENINGITIS.—This disease prevails to a considerable extent among the horses in Carroll County, Mo.

RUSSELL PEERLESS REAPER AND MOWER.—We call attention to the advertisement of A. G. Mott, Baltimore, who offers for sale, as agent, this valuable machine. It is strongly endorsed by a number of the best farmers in the country, who have given it a practical test. Those interested can send for a pamphlet for particulars, to A. G. Mott, Ensor Street, Baltimore.

AGRICULTURAL EDUCATION.

It has been within a very recent period that agriculture has been recognized and treated as a science, and made the subject of scholastic instruction. Now it is justly regarded as one of the most important branches of modern applied science, and forms a prominent feature in the course of instruction of many colleges and universities. Notwithstanding the difficulties that impeded its progress, seeing that each experiment required many months for its completion, and that many experiments conducted through a series of years were needed to evolve many facts and principles bearing on the subject, it has been productive of most important and valuable results, especially in the densely populated States of Europe.

Some years since, statesmen and philosophers of those countries were greatly concerned to find a solution of the difficult problem, how best to maintain an economical equilibrium between the population and the supply of food, without danger to the State. A very obvious way was to eliminate, by some means, the redundant population. Emigration was therefore regarded as the best means to that end, and was encouraged and promoted by societies and States. Hence, the swarms of emigrants who flocked to this country, and who are also, now rapidly building up an empire in Australia. But this tide of emigration not only diminished the supply of labor, to the great dissatisfaction of capitalists, but what was regarded, perhaps, as more serious and important in a national point of view, it diminished the supply of recruits for armies and navies, a most vital consideration for States requiring large military and naval establishments. Scientists have discovered another solution to the problem: namely, so to nourish and cultivate the earth, as to cause it to bring forth food in sufficient quantities for the use of man.

Statistics show that in France and Germany, the average yield per acre of agricultural productions, has been steadily increasing in a greater ratio than the increase of population. This result is attributed, by those who have investigated the subject, to the more general diffusion of the knowledge of agriculture by means of schools teaching that branch of useful knowledge. The necessity for emigration has ceased, and now, instead of encouraging, Germany is taking measures to impede emigration.

The Reports of the Royal Agricultural Society of England, show that Ireland was far behind England in skilled agriculture, and it is well known that vast numbers of Irishmen were driven to emi-

grate to escape starvation. Wise and practical men urged, as a remedy, the introduction in the country of agricultural education, and its importance was generally admitted. It was regarded as indisputably useful before the potato blight afflicted the land—after that calamity it was recognized as an absolute necessity, and the people found themselves driven, under the penalty of famine, to improve their cultivation, and produce better and more abundant crops. Agricultural instruction was introduced into various schools and colleges in different parts of the Island, and the beneficial results are recognized in the improved appearance of the country, the increased yield per acre, the greater physical comfort and contentment of the people, and the consequent decrease of emigration.

Even in countries where the science or art of agriculture has attained a high degree of excellence, the importance of agricultural education is strongly urged. In an address recently delivered before an agricultural society in England, the Earl of Derby declared the science of agriculture to have made such rapid progress, that it "now only needed the liberal and judicious application of capital to double the production of England." If that may be accomplished in England, which we had supposed was in the highest state of cultivation, what may we not expect to accomplish in Maryland, by pursuing a like policy?

We, in this country, have not been driven by any such urgent necessity to the introduction of agricultural education; though, if the grasshoppers and potato bugs continue their ravages, and our winters run so far into spring, as this last has done, we too, may be driven to resort to all the aids that skill and science can supply, to produce the necessary supply of food. But the value of such education was too obvious to be overlooked, and has been very generally introduced throughout the country. It has not been in operation in the United States long enough to make its beneficial results so obvious as they are in Europe; but it is claimed by those who have given the subject careful consideration, that those results are very perceptible in the Eastern and some of the Middle States, and have done much to allay the apprehension which was felt, that the farmers in the Atlantic States could not, in their own markets, compete successfully with those of the West, the increased yield per acre on small farms in the East, resulting from a better knowledge of the science of agriculture, counterbalancing the advantages possessed by the West in quantity and quality of cheap land.

There is much diversity of opinion, as to whether this most useful branch of education should be

provided for in purely agricultural colleges, or be made a part of the course of instruction in colleges or universities designed for general education, and to be studied as law or medicine, or any other specialty by those who desire it.

In Germany, as in this country, there are different systems in different States. But the chief agricultural colleges are attached to the various universities, thus giving to the student of agriculture the advantages, if he choose to profit by them, of a wide range of studies in addition to that specialty. There are besides in the various parts of the empire, Experimental Stations, where men of high scientific attainments devote their time, under the control of the government, to experiments in agriculture and the wide range of sciences relating to it.

In France, after long experience, it seems to have been decided that Paris affords the best field for agricultural instruction, as for all other, and the agricultural college, near Versailles, has been attached to the Polytechnic School.

In England, agricultural education has been left more to individual enterprise than on the Continent. The Royal Agricultural Society has given special attention to it. Under its auspices, the Royal Agricultural College of Cirencester was chartered in 1845. Like some other institutions of the same kind, it immediately ran largely into debt, and was on the point to be abandoned when some wealthy and liberal noblemen and gentlemen came to its relief. It seems, however, to have struggled on under difficulties to this time, without attaining great excellence, if we may judge by the extent of its faculty, which, in addition to the Principal, consists of Professors of Agriculture, Chemistry, Natural History, Mathematics, Veterinary Surgery and a drawing master. There are other minor schools of agriculture in different parts of the Kingdom, but in view of the condition of the chief college, after an existence of thirty years, it is not surprising that it is urged as a better plan to provide for thorough instruction, to add a special agricultural college or course, to one of the Universities of Oxford or Cambridge. In truth, in England, *agricultural* and middle class education seem to be synonymous terms, the object being under the auspices of the landed nobility and gentry, to train skilled tenant farmers, and farm bailiffs or overseers. That system may be, and doubtless is, of much benefit in England, with its peculiar organization of society. But I do not think it well adapted to this country.—For however important it may be to have such a class of skilled agriculturists, we have not a clearly defined and well recognized *middle class*. It is not probable that in a country in which it is believed

"all men are created equal," a college which announced itself as designed for the middle class, would be well attended.

The agricultural colleges in this country, whether separate or distinct, as in some States, or forming parts of the universities as in others, receive the proceeds of the United States Educational Land Grant Act of 1862, and are under obligations to conform to the object of the law. Some zealous advocates of the cause of agricultural education, maintain most strenuously that it was designed especially, almost exclusively, for the establishment of agricultural colleges for the education of farmers' and mechanics' children. Others, with more reason, I think, maintain that the law designed to establish schools or colleges of modern applied science, in which says the law, "*the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to the agricultural and mechanical arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions.*" I can discover no good reason why the sons of farmers should, whilst receiving their education, be excluded from other youths of their ages, but many why they should not be so excluded.

Whatever may be the intent and meaning of the law, strictly agricultural colleges have not been generally successful. And there is obvious reason for it. The pursuit of agriculture is not now regarded as highly remunerative. There is a feverish impatience in the rising generation to accumulate wealth rapidly, which drives young men from agriculture into other pursuits promising more speedy wealth. The fact that a large majority of men who adopt the mercantile pursuit fail is lost sight of, the success of the few who accumulate wealth, stimulates youths with the genuine gambling spirit, to stake their prospects in life on mercantile or other pursuits, often wild and visionary, rather than adopt the more natural, independent and certain, but slower pursuit of agriculture. We talk of providing special agricultural schools for farmers' sons, where for every one of them who is willing to hold and guide the plow, there are ten who would rather sell it. They will aid in building railroads and ships, rather than cultivate the earth to produce freight for them to transport when built, notwithstanding the fact that there are thousands of miles of railroad in the country which do not pay expenses, and hundreds of ships lying idle in port, or at sea in ballast, seeking cargoes. So long as this feeling is widely prevalent, it is not to be expected that the halls of exclusively agricultural colleges will be filled to overflowing. So

sensibly has this been felt in Pennsylvania, which has one of the best endowed agricultural colleges in the Union, that the name has been changed by dropping the word "agricultural," though the character of the college remains unchanged, for the express reason that the name conveyed an inadequate idea of the scope and purpose of the college, and repelled, rather than attracted students.

This is an unnatural and unhealthy condition of society, and one of the chief ends of agricultural education is to remedy it by bringing the resources of modern applied science to the aid of agriculture, and teaching the mode of making the cultivation of the earth more profitable and attractive.

The importance of the subject cannot well be questioned: as to the best mode of accomplishing the desired result, whether by purely working schools of agriculture, or in colleges of higher grade, where, in addition to the usual course of liberal mental culture, agriculture, and the arts and sciences relating to it, are taught, there may be difference of opinion.

After mature consideration, I am decidedly of the opinion, that the latter is the better course. If those who own and cultivate the land are thoroughly educated agriculturists, they will soon gather about them skilled agricultural laborers.

I believe all the ends designed to be accomplished by agricultural education will be most surely and effectually attained, in that institution where, in addition to the usual liberal course of scholastic learning, the theory and practice of agriculture, and such branches of learning as are related thereto, are most thoroughly taught by text books, lectures, models and experiments, with a model farm well stocked and equipped, in the highest state of cultivation, constantly before the eyes of the students, teaching by illustration, and attracting by its beauty and comfort. Such an institution would not only supply agricultural education, but EDUCATED AGRICULTURISTS, a class essential to the well being of a State. The most prosperous and best governed countries have been those in whose governments the educated landed proprietors have exerted a potent influence. That was the case in times past in Maryland and other Southern States. The influence of that class of the community has been greatly impaired by recent results in the history of this country. It may be revived by the liberal education of landed proprietors, not only in all that pertains to their special pursuits, but in all that may expand, enlighten, and cultivate their minds and purify their hearts, fitting them to discharge, well and wisely, all the duties of enlightened citizens, in any positions of honor or responsibility to which, in a free State, they may be called.

Results so valuable cannot be attained without adequate means. This important consideration has been more clearly recognized in some States of the Union than in others, as is shown by the aid they have given to industrial or other education.

The Massachusetts Agricultural College has received, from various sources, \$567,464, and receives an annual income from its endowment of about \$30,000, in addition to students fees, room rent, &c. This State has besides an Institute of Technology devoted to industrial education, owning property valued at \$968,843.

In New York, the Agricultural College is attached to the Cornell University; an institution whose property is estimated to be worth \$3,627,200.

The Agricultural College of Pennsylvania, a distinct institution, unconnected with any university, has property valued at \$897,589, of which \$500,000 is a permanent endowment fund, yielding an annual income of \$30,000.

Michigan, with about the population of Maryland, has the oldest and one of the wealthiest agricultural colleges in the United States. Its property is valued at \$929,699.

Iowa, another State about as populous as Maryland, has an agricultural college owning property valued at \$968,899.

The Illinois Industrial University, owns property estimated to be worth \$866,308.

In California, the Agricultural College forms a prominent feature in the State University, an institution whose property is valued at \$1,585,968; and it receives besides large annual appropriations from the Legislature to defray current expenses.

The farm, buildings, apparatus, domestic animals and farming implements belonging to the Maryland Agricultural College, are valued at \$77,700. It has an endowment fund of \$111,000, derived from the sale of the United States Land granted, and it receives from the State annually \$6,000, with a condition imposed, that it shall annually receive sixty State students free of charge for tuition, and furnish them with text books.

When the paucity of means of this college is compared with the more ample foundations of the other institutions I have mentioned, its friends should cease to wonder that its success has not been all that they had desired, and renew their efforts to provide for it more liberally, and make it as it should be, a model of excellence, alike creditable and useful to the State.

SAM'L JONES.

Md. Agr'l College, May 22d, 1875.

MARYLAND AGRICULTURAL COLLEGE.

We have received from the late President of the Board of Trustees, A. B. Davis, Esq., a letter complaining of what he deems unfairness to him in our editorial of the May number of the *Maryland Farmer*, on the subject of the college affairs.

We certainly disclaim any intention to have improperly "criticized" his official acts, and to them alone we alluded; as to Mr. Davis personally, we have, and still do, entertain sentiments of great respect and regard.

We did not publish his report and letter at the time in full, but gave the essential points of his report. His card and report were sent to another monthly journal, and not to us. Had they been sent to us, we might have made room for them.—We published Gen. Jones' communication because it was sent to us. We have ever tried to meet out even handed justice to all who discuss matters relating to the interests of agriculturists. We always expressed our unbiased opinions upon all subjects frankly and fearlessly. What we said in the May number we said two years before, and brought public attention to the anomalous fact, that the *Agricultural College* was without a Professor of Agriculture.

We regret that our venerable friend should take exception to our course, and have only to hope that this explanation will disabuse his mind of the suspicion of any intentional wrong toward him on our part.

Our pages are too crowded this month to permit our complying with his request, to publish his report and his letter to the *American Farmer*. Besides we think enough has been said upon this unpleasant subject.

HARD TIMES.

A recent number of the *New York Tribune* bewails the present prospects of money and business in an eloquent and able article. The *Mercantile Advertiser* copies it, and accompanies it with the subjoined comments:

"So in these times, conversation among all classes turns upon business, as if talking of its dullness would make business any better. There would be more sense in such talk if men would go a little beneath the surface, and discuss the *cause* of this dullness, or more sense still if, when searching for the reasons, they did not rest with false and inadequate ones simply because they have become stereotyped. If our readers can gain either comfort or instruction from the subjoined article from the *New York Tribune*, we shall be glad. It is all very well to talk of patience, and advise men to practice it. Probably none of us will gain too much of that excellent virtue; but it would be

much more to the point to tell us how to avoid the recurrence of such occasions for its exercise in the future. The unfortunate railroads which bear so much of the blame have proved unprofitable, not half so much because they are premature as because the money to build them has cost such exorbitant rates of interest. And as to the towns and cities over-burdened with debt for their sakes, they again would not feel the burden if it were not for the high rates. Even as it is, the railroads have advanced the value of property along their lines to such an extent that the towns and cities, *as a rule*, are by no means the losers. What the railroad interest and the agricultural interest, as well as the mercantile, manufacturing and every other honest interest in this country, need is lower interest and a flexible currency of stable, unvarying value; and if all would combine their efforts to secure this, we should have less occasion to talk of dull business, and none to bewail panics."

If we were going to assign reasons for the present stringency, we should mention the national debt, the interest upon which amounting to millions per annum, has been going out of the country for the last ten years; the unprecedented drain upon our National and State treasuries by thieves and corporations of thieves; the factitious cost of railroads and other internal improvements upon which corporations are trying to earn interest; the extravagance of the people growing out of their disposition to ape the codfish aristocracy, who have grown rich without the investment of muscle or brains, and encouraged by a corrupt court at Washington. These are some of the things that contribute to the depression of legitimate business and the unhappiness of the people who bear the burden.—The *California Granger*.

The *California Granger*, from which we extract "*Hard Times*," has made clear numerous causes of the panic, everywhere such a popular topic: but there are reasons, and very serious ones, besides those mentioned, for the "present stringency," that originates in the producing districts and is finally felt in every branch of business.

Producers have not read, nor thought for themselves, nor have they been as industrious and frugal as they should have been. They have been duped and swindled and will be so long as they are ignorant.

To succeed as a producer in this country, one must be intelligent, frugal and industrious.

With these, failure will be the exception and success the rule.

The Scientific American says: Tubs and pails saturated with glycerine will not shrink and dry up, the hoops will not fall off, and there will be no necessity for keeping these articles soaked. Butter tubs keep fresh and sweet, and can be used a second time.

BALTIMORE MARKETS--April 27.

Prepared for the "Maryland Farmer" by GILLMORE & CO., Produce Commission Merchants, 159 W. Pratt st.

[Unless when otherwise specified the prices are wholesale.]

ASHES.—Pots \$6.75
BEESWAX.—Quiet—30@32 cts.
BROOM CORN.—Dull—\$8@14 cts.
COFFEE.—Steady. Prices range from 17@20 cts. for ordinary to choice, gold duty paid.
COTTON.—Market quiet—Ordinary, 14cts; Good Ordinary 14½ cts; Low Middling, 15½ cts; Middling, 15½ cts; Good Middling, 16 cts; Middling Fair, 16½ cts.

EGGS.—Fresh lots—Md. and Pa., 18 @ 19 cts.

FERTILIZERS.—No change to note. We quote:
Peruvian Guano..... \$66 ⅞ ton of 2000 lbs
Turner's Excelsior..... 55 ⅞ ton "
Turner's Ammo. S. Phos..... 45 ⅞ ton "
E. F. Coe's Ammo. S. Phos..... 55 ⅞ ton "
Rasin & Co., Soluble Sea Island Guano 50 ⅞ ton "
Rasin & Co., Ground Bone and Meat..... " "
Rasin & Co., Ammonia, Potash and Bone Phosphate of Lime..... " "
Flour of Bone..... 60 ⅞ ton "
John Bullock & Sons Pure G'd Bone.. 45 ⅞ ton "
Whitman's phosphate..... 50 ⅞ ton "
Bone Dust..... 45 ⅞ ton "
Dissolved Bones..... 60 ⅞ ton "
Missouri Bone Meal..... 47 ⅞ ton "
New Jersey Ground Bone..... 40 ⅞ ton "
Moro Phillips' Super-Phosphate Lime 50 ⅞ ton "
"A A" Mexican Guano..... 30 ⅞ ton "
"A" do do..... 30 ⅞ ton "
Plaster..... \$1.75 ⅞ bbl.

FRUITS DRIED.—Cherries, 20@21 cents; Blackberries, 9½@10 cts; Whortleberries, 16 cts; Raspberries, 28@29 cts; Peaches, peeled, bright, 10@27 cts; Peaches, unpeeled, halves, 9@10 cts; Peaches, unpeeled, quarters, 8½@9½ cts; Apples, sliced, bright, 9 @ 10 cts; Apples, quarters, bright, 7½@8 cts.

FLOUR.—Market Dull—Super \$4.70@5.00; Extra 5 55 @5.75; Western Family 6.00@7.00; Choice family, \$8.25@8.50.

GRAIN.—Wheat—Dull fair to choice, white, 1.30@1.45, fair to choice, red 1.25@1.40. Co n—Southern, white 83@85—Yellow do 78@79—Western mixed 75@83 cts. Oats—73@79 cts.

HAY AND STRAW.—Timothy Hay, dull at \$21@24 per ton; Rye Straw \$16; Oat Straw \$12.00@13.00; Wheat Straw \$10.00@12.00.

HIDES.—Dull—Green 9@10 cts.; Dry salted 13@14 cts.; Dry Flint 15@16 cents.

PROVISIONS.—Bacon Shoulders, 9½@10 cts.; Clear Rib Sides, 13@13½ cts.; S. C. Hams, 15@16 cts.

POTATOES.—Early Rose 2.75@3.00 per Barrel.

RICE.—Carolina and Louisiana, 7½@8½ cts.

SALT.—Ground Alum \$1.15@1.25; Fine \$2.10@2.20 per sack; Turks Island 35@40 cts. per bushel.

WHISKEY.—\$1.25 per gallon.

\$25 Per Day guaranteed using our well Auger and Drills. Catalogue free. W.W. GILES, St. Louis, Mo.

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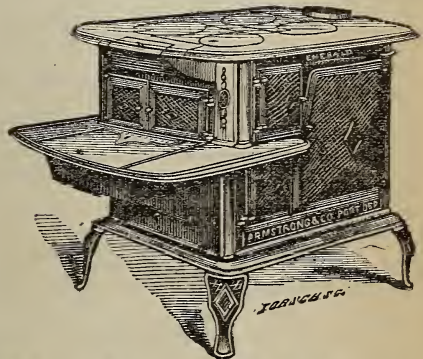
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Is truly a First-Class Harvester. We append a few lines in commendation by practical men.

C. Russell & Co.:

FREDONIA, N. Y., Oct 8, 1874.

Having waited for years for a good Combined Mower and Reaper to appear in the market—one that should be commended not only as a good mower but also as a good reaper—one that could be relied upon for cutting all kinds of grain, and especially for reaping sowed corn—I was fortunate enough to hear, last winter, of the Russell Peerless as being the ideal machine for which I had been anxiously looking. Now let me say to all whom it may concern that in July last I ordered a Russell Peerless Machine, No. 1, on trial, with the condition that if it worked well I would buy it. It more than met my expectations. I have cut one hundred and fifty acres of grain and thirteen of sowed corn with it, reaping for more than a dozen men, all of whom were pleased with the perfect manner in which it did their work. One very heavy piece of oats which I cut was partly lodged, so much so that it could not be cradled decently, but the reaper went through it, cutting the lodged as well as the unlodged in so perfect a manner that some of the spectators said "that is a perfect machine." One man, having a twelve acre piece of oats which he was in a great hurry to have cut, engaged a Wood Reaper together with mine to cut it. On arriving at the field it was found to be a green sward, and having so many dead furrows that the Wood machine backed out, and could not be induced to take the chances with the Peerless, which cut the field entire, doing a good job, coming out all right and ready for another engagement. On hearing that the Peerless Reaper was going to cut a very heavy piece of sowed corn, some men went up as spectators to see it "go to the shades," (as they expressed it); no reaper in their opinion could stand to go through such a piece of corn as that. The corn was eight feet high, and stood very thick. To add to the dangers, the wind was blowing quite briskly. But the Peerless went in triumphantly, clearing the track before it. After waiting two hours to see it *came*, the spectators gave it up, some of them saying, "you can *underbrush* with that machine." Suffice it to say, the field was cut and done in good style, the machine coming out ahead of all our expectations. Besides all this reaping, I mowed one day with the Peerless and found it to be a first-class mower. I would say to all wanting the best reaper and mower in this or any other market, get the Russell Peerless. It is easy, light, and without any side draft, not even in cutting the heaviest corn. Again, I say the best is the cheapest. Get the Peerless.

JOHN MILLER.

Thos. J. Young, Bryan, O.:

BRYAN, O., March 4, 1875.

Dear Sir—The No. 1 Russell Reaper and Mower that I purchased of you last season is a success, and I can freely say it has exceeded my expectations. It is more than you represented it to be. As a mower, it runs light and does its work well, and as a self raker it runs light and does its work in a first-class manner. It lays the gavel off to one side nicely, out of the way of the team coming around next time, and leaves it in as good shape for binding as any machine can possibly do.

That tilter is the nicest arrangement I ever saw. You can regulate the height of cut without stopping the team, and it makes it very handy where there is down or tangled spots. You can drop the cutter bar so that the rakes will gather it all up as clean as if it stood up. I can beat the world cutting clover seed. I have seen a good many machines cut, but never saw one that would equal the Russell Peerless, and would say to my neighbors wishing a machine, buy a Russell Peerless, and you never will regret it.

Truly yours,

THOMAS CLODFELTER.

Messrs. C. Russell & Co.:

MELINGROVE, Pa., 1874.

This harvest your agent sent me one of your Peerless Mowers and Reapers. I had a Dodge machine, and thought there was no machine equal to it; but I concluded to try the Russell Peerless, and am free to acknowledge that the Peerless so far excels the Dodge, both in making sheaves and draft, that I feel it my duty to you, and the farming community, to give my testimony in favor of the Peerless. The whole cry in this county has been Dodge and Champion, but it has changed very much, and now many farmers say, when I buy a machine I will buy the Russell. I can draw the Russell with one horse, if necessary. I never saw a machine run so light, and do such good work, as was done on my farm, in all kinds of grain. And as a mower its equal has never been seen in this county. I tried the machine in gear on my barn floor, and drew it first with one hand and then with one finger, over the floor. In the field three boys drew it 100 yards, cutting the grain and throwing the sheaves. I would say to all farmers, buy the Russell Peerless. I

REUBEN GEMBERLING.

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In our SEED DEPARTMENT will be found a Large and Select assortment of
FIELD, GARDEN AND FLOWER SEEDS,
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Situated one mile South of Baltimore, we are prepared to fill, at short notice, orders for

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aply **LIBERAL DISCOUNT TO THE TRADE.** **SEND FOR CATALOGUES.**

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Ammoniated Bone Super-Phosphate.

ANALYSIS:

Ammonia.....	3.18
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Bone Phosphate of Lime.....	3.15

Composed of the most concentrated materials, it is richer in Ammonia and Soluble Phosphates than any other Fertilizer sold, and is made with same care and supervision as our EXCELSIOR, its only competitor; uniform quality guaranteed; fine and dry; in excellent order for drilling. Packed in bags.

PRICE \$45 PER TON.

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POPPLIN'S SILICATED PHOSPHATE OF LIME.

COMPOSED OF VEGETABLE SILICA, DISSOLVED BONE AND POTASH SALTS, which, when compared, is truly STABLE MANURE IN A CONCENTRATED FORM.

Price \$50 Per Ton in Bags. Discount to Dealers.

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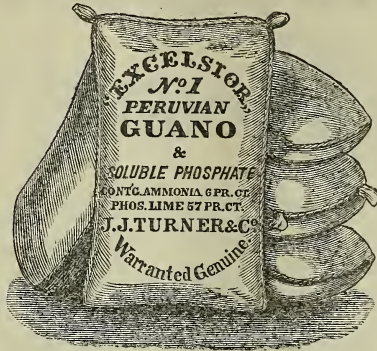
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To Tobacco Planters.

1858.



1875.

Seventeen Years' Experience

By the Planters of Maryland and Virginia in growing TOBACCO has convinced the most skeptical that

“EXCELSIOR”

HAS NO EQUAL

in growing and maturing that crop. It is now the unanimous opinion that “from the application of EXCELSIOR the crop is heavier, of FINER QUALITY, CURES EARLIER, and is not so liable to suffer drought, as from the use of Peruvian Guano.

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Containing a commentary on the Federal and State Constitutions, giving their history and origin, and a full explanation of their principles, purposes and provisions; the powers and duties of Public Officers; the rights of the people, and the obligations incurred in every relation of life; also, parliamentary rules for deliberative bodies, and full directions and legal forms for all business transactions, as making Wills, Deeds, Mortgages, Leases, Notes, Drafts, Contracts, etc. A Law Library in a single volume. It meets the wants of all classes and sells to everybody.

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June-1t

**John Saul's
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Will be ready in February with a colored plate, mailed free to all my customers, to others price 25 cents. A plain copy to all applicants free.

Plant Department

contains an immense stock of

New, Rare, and Beautiful Plants,
Sets of New Pelargoniums, New
Zonale and Double Gerani-
ums, New Fuchsias, New
Roses, New Heliotropes,
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Beure d' Assumption, Souviner du Congress, with a collection of other new

PEARS.

EARLY BEATRICE, EARLY LOUISA, EARLY RIVERS, with a lot of other new

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EVERGREENS of all sizes. All of the finest quality and at the lowest rates.

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of the finest quality, fresh and pure, grown by myself, or specially for me, or my importation.

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Being extensively engaged in importing and growing New and Rare Plants, consequently my facilities for seed saving are unequalled.

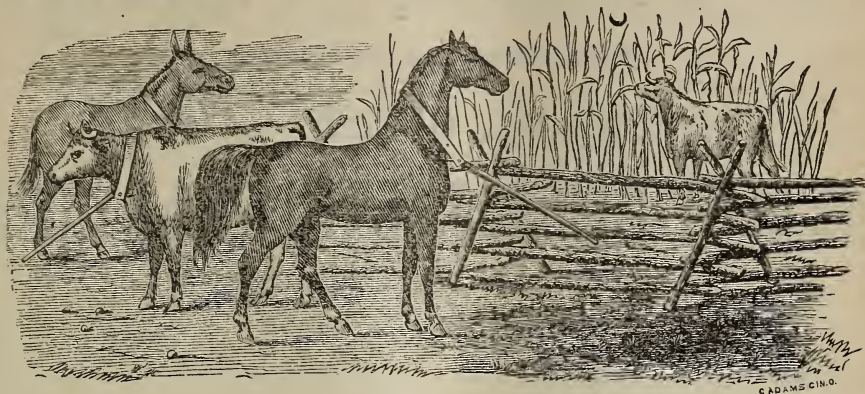
The following Catalogues with others, now ready, mailed free: No. 1, a Descriptive Catalogue of Fruit Trees. No. 2, a Catalogue of Garden Agricultural, and Flower Seeds. No. 6, a Catalogue of New, Rare and beautiful Plants.

JOHN SAUL,

Jan'y

Washington, City, D. C.

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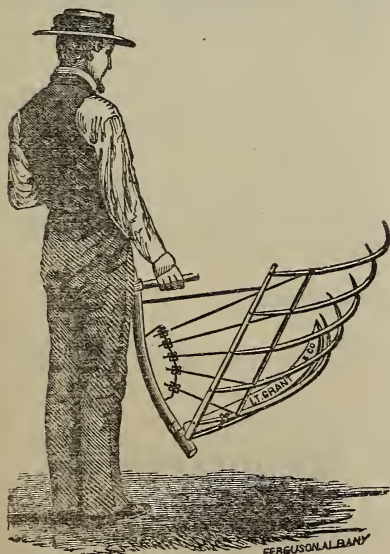
This little implement has met with great success and the annual sale of it already amounts to thousands, though it has only been introduced about two years. It is arranged so that two small steel brads prick the animal's neck every time he approaches sufficiently near to a fence, to bear downward on the lever, causing him every time to back away. They are not only an *absolute preventive* to fence jumping, but will in most cases cure animals entirely of the habit.— They are a perfect success, and we recommend them in the strongest terms to every one having breechy stock. PRICE, \$1 25.

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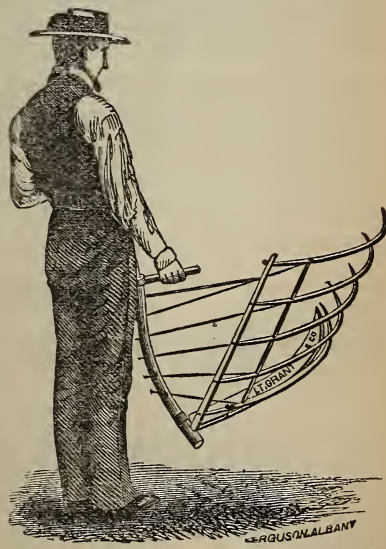
GRANT'S GRAIN CRADLES.

GRANT'S SOUTHERN PATTERN CRADLE.

GRANT'S VIAL PATTERN CRADLE.



4 finger, price.....	\$4 50
5 " "	4 75
6 " "	5 00



4 finger, price.....	\$4 50
5 " "	4 50
6 " "	4 75

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To Tobacco Planters.

WE OFFER THE BEST TOBACCO FERTILIZER KNOWN.

We make a phosphate specially adapted for the growth of potatoes and tobacco which we brand



WHITMAN'S POTATO PHOSPHATE.

and which is made of the most concentrated and highly approved ingredients, We use as a base (1250 lbs.) of pure dissolved bone ash yielding 43 *per cent. soluble phosphate*, and we claim there is no substance known which will produce as high percentage as this (excepting the phosphoric acid be extracted by means too expensive to admit of its being used as a fertilizer). The balance is made up *entirely* of dried blood (testing 10 per ct. of Ammonia) and potash.

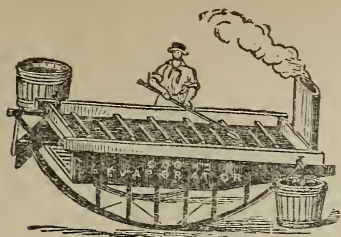
Potatoes and Tobacco require the same plant food, and the above mixture has proven itself one of the most successful fertilizers ever known for the promotion of the growth of these crops.

Price \$50 per ton of 2,000 lbs., in new sacks.

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21,000 COOK EVAPORATORS are in use, and 21,000 VICTOR CANE MILLS; all warranted. They have taken the

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All attempts, thus far, to equal these unrivaled machines by other contrivances have signally failed on trial. Planters can't afford to risk crops of Cane on light, weak, unfinished Mills that break or choke, or, on common pans or kettles, that do second-class work and only half enough at that.

The Sorgo Hand-Book and Price-List sent free.

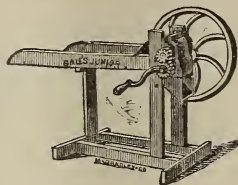
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Manufacturers of Cane Machinery, Steam Engines, Shaker Thresher, Wood-sawing Machines, Corn and Cob Crushers, Farm, School, and Church Bells. je-2t

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FOR HAND OR POWER,
ARE THE BEST IN AMERICA.



WILL last a Lifetime.
\$9 size Cuts from 20 to 50 bushels per hour.
THEY ARE SENT ON TRIAL.

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CIRCULARS FREE.

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BAUGH & SONS

High Grade Manure for Tobacco.

BAUGH'S RAW BONE

The old established article sold
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Super-Phosphate of Lime.

under a guaranteed analysis. Also
Meal, and a full line of Chemicals

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OIL VITRIOL,

SALT CAKE, (Sulph. Soda),

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Manufacturers and Manipulators of Phosphates,

On Orders and Formulas furnished by our Customers.

WE OFFER TO THE TRADE THE FOLLOWING GOODS, ALL OF WHICH ARE ABSOLUTELY
FREE FROM ADULTERATION:

DISSOLVED GROUND BONE, Containing 3 per ct. of Ammonia,

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BEST Selling Imitation Gold Watch, in the market. This is a Pure Coin Silver Hunting Cased Watch; English rolled Gold plate; sunk Second Dial; Full Jewelled; Expansion Balance; Nickel Movements; beautifully engraved Cases; and is equal in appearance to a Gold Watch that costs from \$80 to \$100. It sells and trades readily, for from \$25 to \$60. If you wish a watch for your own use, or to make money on, try this. Price \$17 only. We will send this watch C. O. D. subject to examination, if you send \$2 with the order, the balance of \$15 you can pay the Express Co., if the watch proves satisfactory.

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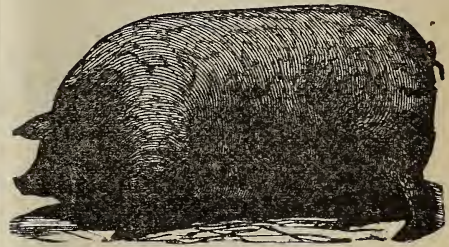
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**BERKSHIRE & ESSEX PIGS,
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Live Peacocks, Male Birds, 3 years old or over—Address, stating lowest cash price for bird, boxed ready for shipment by express C. O. D., to New York.

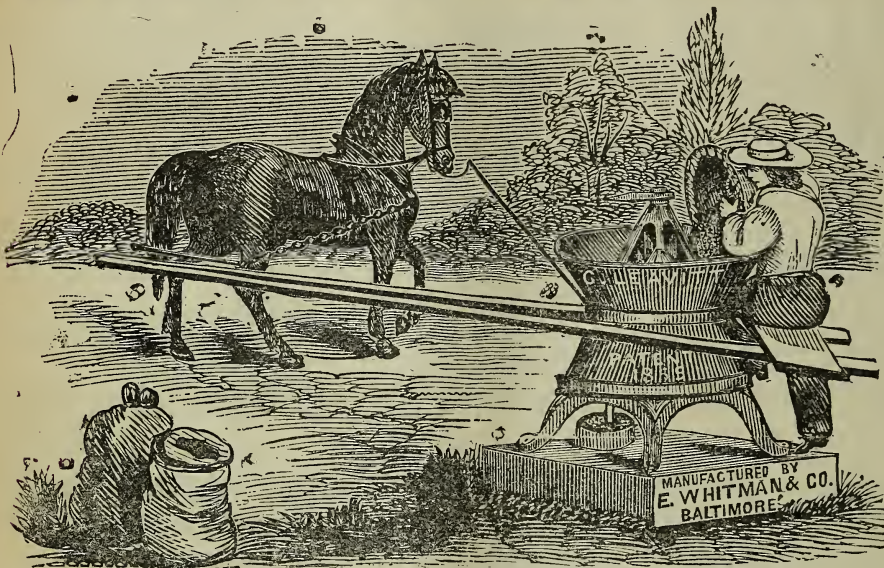
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The Toll-Gate! Prize Picture send free! An ingenious gem! 50 objects to find! Address, with stamp, E. C. ABBEY, Buffalo, N. Y. June-ly

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First Premium at New York State Fair.

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LITTLE GIANT, 4 " 45 "

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FERTILIZERS.

SOLUBLE SEA ISLAND GUANO:

Of Undoubted Excellence for Cotton and Tobacco.

Ammoniated Alkaline Phosphate:

The Patrons Manure, to whom we refer.

BONE AND MEAT FERTILIZER:

This article being combined with POTASH, contains all the elements necessary for the growth of the plant and the maturity of the fruit.

LONE STAR BRAND OF FLOUR OF BONE:

From our Extensive Factory at Falton, Texas.

AMMONIACAL MATTER:

Manufactured of uniform quality.

POTASH SALTS, of our own importation.

Sulphuric Acid, Dissolved Bones,

And all Articles required for the making of a good
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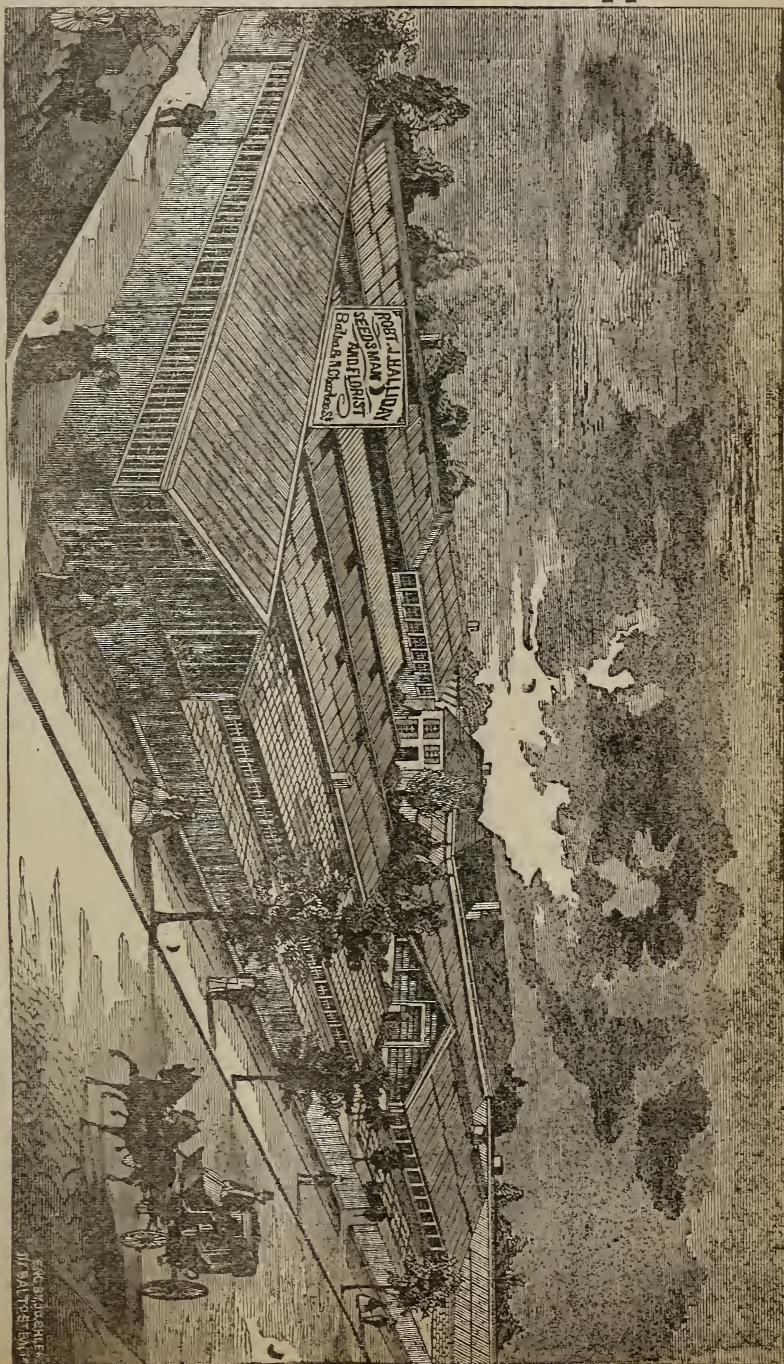
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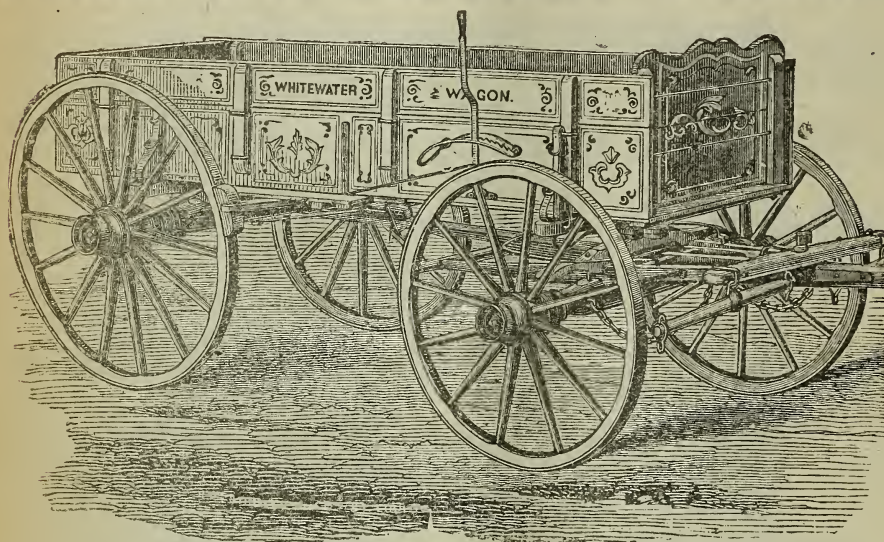
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NOW READY---Mailed Free to all Applicants.

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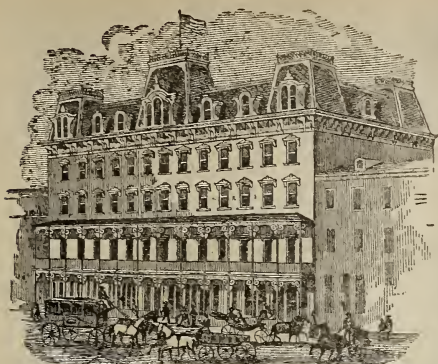




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3 inch Thimble Skin, Light 2 Horse.....	\$110	00—	2500 lbs.
3 $\frac{1}{4}$ “ “ “ Medium 2 Horse.....	115	00—	3000 lbs.
3 $\frac{1}{2}$ “ “ “ Heavy 2 Horse.....	120	00—	4000 lbs.
3 $\frac{3}{4}$ “ “ “ 3 or 4 Horse.....	125	00—	5000 lbs.
3 $\frac{3}{4}$ “ “ “ for 4 Horses, with stiff tongue, pole and stretcher chains.....	140	00—	5000 lbs.

1½	inch	Iron Axle, Light 2 Horse.....	\$115 00—	2300 lbs.
1¾	“	“ Medium 2 Horse.....	120 00—	2800 lbs.
1¾	“	“ Heavy 2 Horse.....	130 00—	3500 lbs.
2	“	“ for 4 Horses, with stiff tongue, pole and stretcher chains,	140 00—	5000 lbs.
2½	“	“ 4 “ “ “	170 00—	7000 lbs.

Nos. 145 & 147 W. Pratt Street,
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C. R. HOGAN, Proprietor.

Capacity 350 Guests.

Has just received a series of Costly and Elegant Improvements, embracing every Department of the Hotel, having been Remodeled, Enlarged and Newly Furnished throughout thereby supplying a want long felt by the traveling public, a "FIRST CLASS HOTEL," at the very moderate price of \$2.50 per day.

There is attached to the Hotel the most Elegant and extensive RESTAURANT in the city, thereby enabling persons to engage Rooms and live on the European plan, if so desired.
Jan-ly.

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Breeder & Shipper of Butter Dairy Stock,

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PURE GUERNSEY, ALDERNEY, AND JERSEY.

Also, Yorkshire and Berkshire Pigs, and Dark Brahma Chickens,
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For Cultivating the Crop of 1875.

MALTA IRON BEAM DOUBLE SHOVEL PLOWS.
WHITMAN'S REVERSIBLE TEETH CULTIVATORS, (Stationary
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WHITMAN'S SOLID STEEL TEETH CULTIVATORS, (Stationary
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WHITMAN'S TOBACCO CULTIVATORS.
WHITMAN'S HARROW CULTIVATORS.
CULTIVATOR TEETH OF EVERY DESCRIPTION.
WHITMAN'S CELEBRATED COTTON PLOWS.
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HOES OF EVERY DESCRIPTION.
THOMAS SMOOTHING HARROW.

All of the Very Best Quality and at the Lowest Market Prices.

E. WHITMAN & SONS,

Nos. 145 & 147 West Pratt Street,

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The Excelsior Reaper, [with Dropper or Self-Rake.]
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34 pounds Ammonia,

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Lister's Standard Bone Superphosphate of Lime,
Guaranteed to be Cheaper than the best Phosphate in the market,
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A complete assortment of Standard and Dwarf FRUIT TREES, SHADE and ORNAMENTAL TREES, EVERGREENS, Hardy Ornamental and Climbing SHRUBS, GRAPES, SMALL FRUITS, HEDGE PLANTS, &c.

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Would call the special attention of our friends and customers, to the following first-class Machinery and Implements, which we guarantee to be equal to any article of the kind made in this Country, being all of our own Manufacture.

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Reading's Patent Horse-Power Corn Sheller, with Fan Attachment.
Sheller, plain.

Double Spout Hand or Power Sheller. Single Spout Shellers—all kinds.

Corn and Cob Mills, Grist Mills, for Farm and Plantation use. WHEAT AND CORN FANNING MILLS.

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Threshers and Separators—different kinds and sizes.

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I also offer to beat with said Brown Leghorns any other breed of fowls in the world—laying eggs, or for early poultry. They are non-sitters. Have taken 1st and special premiums at all the exhibitions I have attended this season. Am breeding from three 1st premium Cocks and Cockerels, and several 2d and 3d premiums. Have sold no PREMIUM birds. I MAKE A SPECIALTY OF

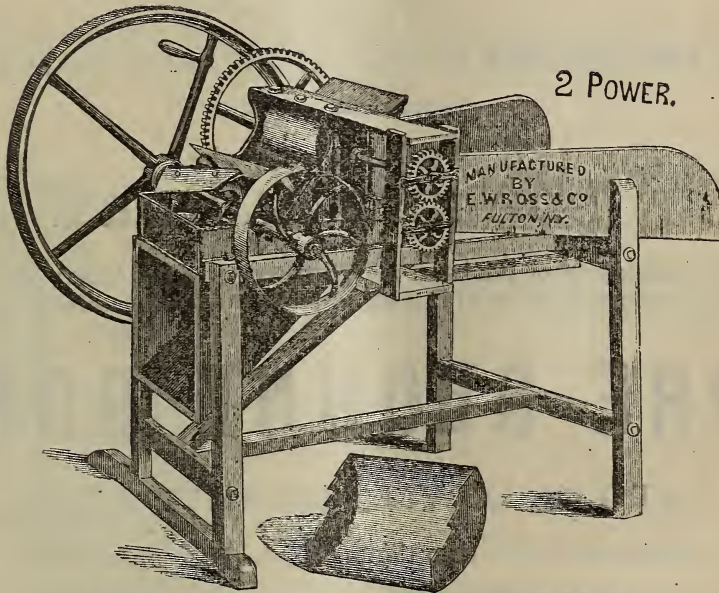
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and have several acres under cultivation—have taken first premiums at the Worcester County Horticultural Society's annual exhibition, for largest and best collections Strawberries, five years in succession, and have sold Strawberries grown out of doors at a higher price per quart than any other man in the State. I also offer a limited number of Plants of my new seedling Strawberry, Kinney's No. 10. I have tested the No. 10 thoroughly, fruiting one acre the past season, and shall set 5 acres for next season. It is by far the most profitable Market Strawberry I am acquainted with. Is a seedling of Wilson crossed on Jucunda. Is a better berry in every respect than the Wilson, and nearly two weeks later. Is just what we have all been watching for. It does remarkably well in all soils where it has been tried. As hardy as Wilson, is stronger in growth, and as productive.

I shall sell a limited number of plants in the spring of 1875, at \$3 per dozen, \$20 per hundred, and \$100 per thousand. seply

THE CUMING'S IMPROVED FEED CUTTER.

The Only Perfect Machines
FOR CUTTING HAY, STRAW, STALKS,
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We make Six Sizes, with capacity from 500 lbs. to 3 tons per hour.

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The machines are made from the choicest material and perfectly finished, and are well known in the North and West, and can now be had in all the principal cities and towns of Pennsylvania, Maryland and the South. Send for circulars to

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PURE GROUND BONE,

AT THE LOWEST MARKET PRICE.

An experience of more than thirty years in the manufacture of a

SUPERIOR ARTICLE,

(from crude stock gathered daily from the Butchers in this market, with whom we have yearly contracts,) coupled with the fact of our inability, as to former seasons, of filling all orders sent to us, has demonstrated the advisability of our making a considerable outlay so as to meet demands upon us, and think we are now situated to please all that may favor us with a call. Thankful for past favors we hope in the future to merit a continuance of the same.

Respectfully,

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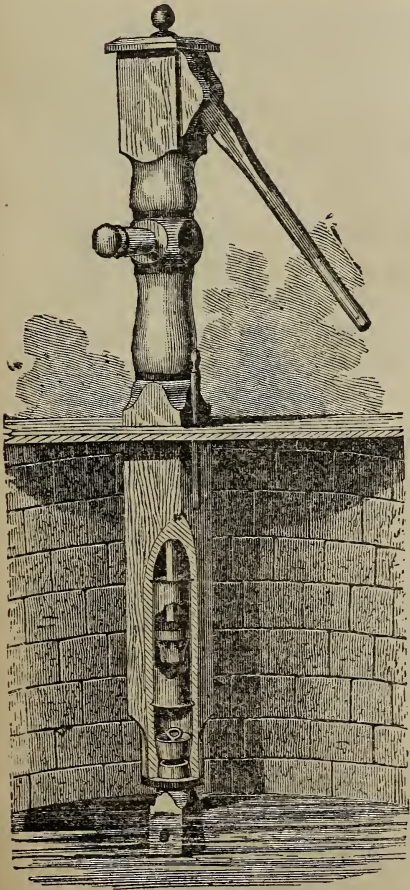
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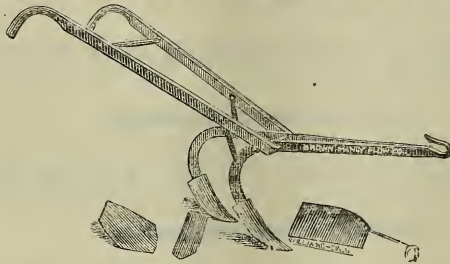
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These Pumps have proven themselves to be the best made, least liable to get out of order, the best working and most durable and desirable Farm Pumps ever made. We have come in competition with nearly every other Cucumber Pump made in the country, and the verdict is, invariably, that the Whitman Pump is far superior to all others. They are suitable for wells of any depth up to 100 feet, and our prices are, when the quality of the goods is considered, less than that of any other Pump made.

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The Best Implement ever invented for the Cultivation of Corn, &c.

Any farmer who once uses them will not do without them!

During an experience of over thirty years in supplying plows and agricultural implements to the farmers of Maryland and the Southern States, we have never sold any article that has met with greater and more deserved success.

The Bull Tongue is a very narrow shovel to use on the front standard when the corn is very young.

The Clod Fender is to prevent any earth being thrown on the corn.

The regular shovel is used when the corn is a foot high or more.

The Mouldboard is used to throw the earth up to the corn when the corn is pretty well grown.

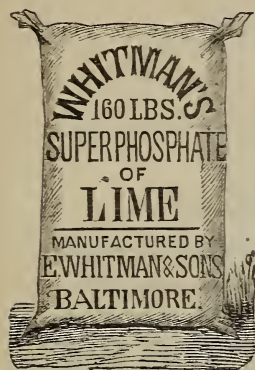
PRICES.

Plow.....	\$8 00 with shovels only.
Extra Shovels	1 25 each.
Mouldboard.....	1 50 "
Bull Tongue.....	1 00 "
Clod Fenders	1 00 "

To prevent confusion we would add most of the plows we sell are with the shovels only, though the Mouldboard, Bull Tongues and Clod Fenders are very useful additions.

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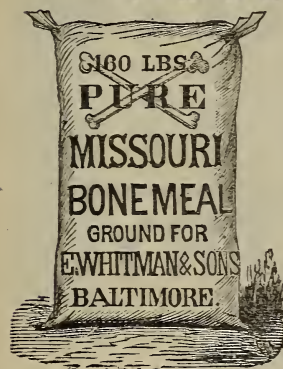


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Manufactured only by E. WHITMAN & SONS,
IS THE
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Price \$50 Per Ton, in Sacks, of 160 pounds each.

MISSOURI BONE MEAL.

Its Superior an Impossibility.



Analysis : Ammonia..... 4.38
 Bone Phosphate of Lime..... 49.51

Which is the highest analysis yielded by pure bone. The largest particles are smaller than timothy seed.

Price \$48 Per Ton, in Sacks of 160 lbs. each.

CAUTION !

As some parties are offering as Missouri Bone Meal other than the genuine article, we caution all persons that none is genuine unless the bags are branded as shown in the accompanying cut. Our Trade Mark is copyrighted, and we take the entire production of the Mill, and all infringements upon our copyright will be prosecuted to the full extent of the law. This article is perfectly pure, and has made a reputation for excellence never equaled by any Bone offered in this market. We do not claim that Bones ground in Missouri are any better than others, but we do claim that the Bone ground by our Mill is perfectly pure, and in unusually fine condition. "Missouri Bone Meal" is a name that we gave to designate this particular article; and to keep other dealers from palming off their goods upon those desiring the genuine Missouri Bone Meal, we have had our Trade Mark copyrighted.

New Jersey Ground Bone.

PRICE \$40 PER TON.

We have sold hundreds of tons of this Bone, and it has invariably given satisfaction. Peruvian Guano, South Carolina Bone (fine ground or dissolved,) Plaster, Sulphuric Acid, Potash, Sulphate of Soda, Nitrate of Soda, and all kinds of Fertilizer materials always on hand and for sale at the lowest market prices.

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Bone Flour & Bone Dust

ANALYSIS:

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BONE PHOSPHATE OF LIME, - - - 44.56

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Packed in good, strong bags. Price \$43 per ton.

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MAKE A SPECIALTY OF

Light Brahmas, Black Cochins,

Buff Cochins, and Sebright Bantams,

And can also furnish most of the varieties of

PURE BRED FOWLS, DUCKS AND TURKIES,

At very low prices for pure bloods. Have a large stock Light Brahmas on hand, and can fill orders in any quantities with No. 1 birds.

Satisfaction given. No Circulars, but gladly write any information.

Prices usually from \$4 to \$5 each—some *very extra* birds a little higher. Prices include boxing, &c.

A few BERKSHIRE SWINE, same stock as stock 1st Prize at Connecticut State Agricultural Exhibition last September. Extra fine specimens \$10 each at 8 weeks old.

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